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Seat	Sat	D
No.	Set	

Five Year Integrated (M. Tech.) (Semester - I) (CBCS) Examination: Oct/Nov-2023

			COSMETIC T Cosmetic Chem			
			iday, 05-01-2024 И То 02:00 РМ		Max. Marks:	: 80
Insti	uctio	2	 Q. Nos.1 and 2 are compuls Attempt any Three question Figures to the right indicate 	s fro		
Q.1	A)	Cho 1)	ose the correct alternative. The Limit test is based on in the sample. a) Quantitative c) Both a & b	b)	measurements of impurity present Qualitative None of the above	10
		2)	In the pH term, 'p' stands for a) Price c) Power	b)	 Peak All of the above	
		3)	Basic buffer solutions are preaa) Weak acid & its salt c) Weak base & its salt	b)	Strong acid & its salt	
		4)	The pH of buffer solution doe ion. a) Complex c) Common		t change due to the presence of Salt None of the above	
		5)	The air-borne dust particles i a) Microbial contamination c) Manufacturing defects	b)	Packing errors	
		6)	The solution which is not pre reagent is known ass a) Primary c) Standard	oluti b)	d from known concentration of on. Secondary All of the above	
		7)	Potentiometric method meas a) Potential c) Resistance	b)	the changes in Volt Current	
		8)	The non-aqueous titrations y a) Broad c) Wide	ields b) d)	Sharp	
		9)	Tap water contains ima) Cl ⁻ c) K ⁺	purit b) d)	• •	

		 10) The limit lest for lead (Pb) involves the formation of a) Colour b) Complex c) Salt d) Double salt 	
	B)	 Identify True/False. Cosmetic thickeners involves the driving force. Liquid ammonia is the example of protophilic solvent. The crystal violet indicator has violet color in basic medium. Impurity is different from the chemical composition of compound. Mercuric chloride paper is used for the limit test of Lead (Pb). Dithiazone forms green colored complex with lead. 	06
Q.2	Ans a) b) c) d)	Explain the potentiometric method of non-aqueous titration. Write down the limitation of Arrhenius theory. Explain Lewis acid-base theory. Define impurity and official preparation.	16
Q.3	Ans a) b)	wer the following. Write down the types of impurity in detail. Explain synthetic thickeners.	16
Q.4	Ans a) b)	wer the following. Write down the advantages of non-aqueous titration and explain the interference due to water in non-aqueous titration. Explain acidic and basic buffer solution and give properties of buffer solution.	16
Q.5	Ans a) b)	swer the following. Define cosmetic thickeners and explain naturally derived thickeners. Explain the concept of pH and pH scale.	16
	a) b)	Define cosmetic thickeners and explain naturally derived thickeners.	16 16

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No.	Set	

Five Year Integrated (M. Tech.) (Semester - I) (CBCS) Examination:

		, i oui	Oct/Nov-2023	
			COSMETIC TECHNOLOGY	
		F	ndamentals of Anatomy and Physiology (CT102)	
			lay, 07-01-2024 Max. Marks: 8 o 02:00 PM	5 0
Instr	uctio	2	Q. Nos. 1 and. 2 are compulsory. Attempt any three questions from Q. No. 3 to Q. No. 7 Figure to right indicate full marks.	
Q.1	A)			0
σ	Λ,	1)	n which of the following type of cells Sarcoplasmic reticulum is found? a) Muscle Cells b) Liver Cells c) Kidney Cells d) Neurons	
		2)	Which of the following are phagocytic cells? a) neutrophils b) mast cells, macrophages c) mast cells, antibodies d) neutrophils, macrophages	
		3)	Which of the following cell contain a cell wall? a) Plant cell b) Bacteria c) Fungi d) Animal cell	
		4)	Which of the following is known as the powerhouse of a cell? a) Mitochondria b) Cytoplasm c) Lysosome d) Nuclei	
		5)	Which protein is produced by liver? a) Albumin b) Globulin c) Fibrinogen d) All of the above	
		6)	Which of the following comes under loose connective tissue? a) Areolar tissue b) Adipose tissue c) Reticular tissue d) All of the above	
		7)	What is the major function of mast cells? a) Produce histamine b) Kills bacteria etc c) Stores triglycerides d) Secrete antibodies	
		8)	Which structure is known as the working unit of nervous system? a) Nerves b) Neurons c) Cell body d) Neuralgia	
		9)	Which of the following cells are responsible for our skin colour? a) Melanocytes b) Keratinocytes c) Markel cells d) Langerhans cells	
		10)	Where does the image of an object formed in eye? a) Sclera b) Cornea c) Choroid d) Retina	

	В)	 Write true and false. Sclera is the outermost part of human eye. Hemoglobin is protein present in blood. 55 percent plasma is present in blood. Nails are necessary part of the skin. RBC play major role in immunity. Heparin is natural clotting factor present in blood. 	06
Q.2	Ans a) b) c) d)	wer the following. Write the functions of plasma membrane and lysosomes of animal cell. Comment on the function of skin. Draw a neat-labeled diagram of eye. Distinguish between WBC and RBC.	16
Q.3	Ans a) b)	wer the following. What is pigmentation of skin? Write a note on melanin synthesis. Comment briefly on sebaceous gland.	10 06
Q.4	Ans a) b)	wer the following. What is tissue? Give different types of tissue. Comment on nervous tissue. What is skin? Give different properties of baby skin.	10 06
Q.5		wer the following. Write a note on structure and function of eye. Write a note on RBC	80 80
Q.6	Ans a) b)	wer the following. What is keratinization? Write down the physiology of keratinization. Explain the structure and function of mitochondriya.	10 06
Q.7		wer the following. Write a note on epithelial tissue. Write a note on nervous tissue.	08 08

Seat	Set	D
No.	Set	<u> </u>

Five Year Integrated (M. Tech.) (Semester - I) (New) (CBCS) Examination: Oct/Nov-2023 COSMETIC TECHNOLOGY Natural Cosmetic Agents – I (CT104)

			Natural Cosmetic Agents – I (CT104)	
			uesday, 09-01-2024 И То 02:00 РМ	Max. Marks: 80
Instr	ructio	2	1) Q. Nos.1 and 2 are compulsory. 2) Attempt any Three questions from Q.No.3 to Q.No.7. 3) Figures to the right indicate full marks.	
Q.1	A)	Mult 1)	tiple choice questions. The great Greek physicianis known as 'Father of a) Hippocrates b) Theophrastus c) Seydler d) Aristotle	10 Medicine.
		2)	is an example of low molecular weight carbohy a) Fructose b) Sucrose c) Glucose d) All of the above	drate.
		3)	is a inner most layer of the pericarp. a) Epicarp b) Mesocarp c) Endocarp d) None of the above	
		4)	Fixed oils are soluble in a) Ether b) Benzene c) Chloroform d) All of the above	
		5)	Sushrutha is called Father of a) Indian medicine b) Plastic surgery c) Both a and b d) None of the above	
		6)	is a fertilized ovule. a) Fruit b) Leaf c) Seed d) Root	
		7)	is an example of pentoses. a) Erythrose b) Glucose c) Fructose d) Arabinose	
		8)	is also known as Ricinus oil. a) Linseed oil b) Castor oil c) Sesame oil d) Olive oil	
		9)	is obtained from the wool of the sheep. a) Spermaceti b) Lanolin c) Carnauba, wax d) Teel oil	
		10)	Herbs that live two seasons and dies are calleda) Biennial b) Annual c) Perennial d) None of the above	herbs.

	B)	Write True or False:	06
		Coconut oil contains salicylic acids which help to reduce dryness	
		and allow your skin to retain moisture.	
		2) Leaves is organized part.	
		3) Sucrose on hydrolysis yield glucose and fructose.	
		4) Several volatile oils are used in perfumery.	
		 Fruits developed from a single matured ovary in a single flower is called Aggregate fruits. 	
		 Galen (131-200 A.D.) is well known for his studies on animal kingdom. 	
Q.2	Ans	swer the following.	16
	a)	Write a note on Benedict's test as an identification test for carbohydrate.	
	b)	Distinguish between leaf and leaflet.	
	c)	Add a note on chemical classification system of drugs of natural origin	
		along with their merits and demerits.	
	d)	Write down the identification test of fixed oil.	
Q.3	Ans	swer the following.	
	a)	Explain the Pharmacological classification system of drugs of natural	80
		origin along with their merits and demerits.	
	b)	Write down the biological source, geographical source, chemical	80
		constituents and the uses of Guar gum.	
Q.4	Ans	swer the following.	
	a)	Write a note on the following:	08
		1) Mucilage	
		2) Extracts	
	b)	Write down the biological source, geographical source, method of	80
		preparation, chemical constituents and the uses of Bees wax.	
Q.5		swer the following.	
	a)	Write down the biological source, geographical source, chemical constituents and the uses of acacia.	80
	b)	Explain the morphology of stem.	08
	D)	Explain the morphology of stem.	00
Q.6	Ans	swer the following.	
	a)	Explain the taxonomical and chemical classification system of drugs of	80
		natural origin along with their merits and demerits.	
	b)	Write down the biological source, geographical source, method of	80
		preparation, chemical constituents and the uses of kokum butter.	
Q.7		swer the following.	
	a)	Comment on modification of adventitious roots.	80
	b)	Write down the biological source, geographical source, method of	80
		preparation, chemical constituents and the uses of Arachis oil.	

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No.		Set	P

Five Year Integrated (M. Tech.) (Semester - I) (CBCS) Examination: Oct/Nov-2023

		COSMETIC TEC English (Communicati			
-		: Thursday, 11-01-2024) AM To 02:00 PM	011 0	Max. Marks: 40)
Instr	uction	is: 1) All questions are compulsory. 2) Figures to the right indicate full n	narks.		
Q.1	Multi 1)	ple choice questions. In the prose, <i>The Birth of Khadi</i> M.K. to deliver a talk on a) religion	Gandl b)	08 hi, the chairman asked Gandhi khadi	3
		c) freedom	ď)	poverty	
	2)	JadhavPayeng in the prose <i>JadavPay</i> from a) Meghalay	b)	Assam	
		c) Guwahati	d)	Sikkim	
	3)	As mentioned in the prose <i>The Portra</i> abroad for studies for years. a) six	it of a	Lady, Khushwant Singh was	
		c) five	d)	eight	
	4)	The poet in the poem <i>Let Me Not Pray</i> desires not to be sheltered from	,		
		a) cowardicec) love	b) d)	compassion dangers	
	5)	In the poem <i>The Lotus</i> compl a) Lily and Rose c) Rose and Daisy	b)	for the title of the poem. Lily and Daisy Rose and Tulips	
	6)	The, father in the poem <i>The Toys</i> disc bedroom. a) Indian c) French		British African	
	7)	Make the adjective of the noun 'harm' less etc. The correct option will bea) harmful b) harmless c) harmal d) both harmful & harmless		sing the suffixes:-al,-ous,-ful,-	

{	ser A n a) b) c)	adjective	
Q.2	Answer a	any four of the following question in brief.	08
	a) Des	cribe the character of the grandmother in the prose. <i>The Portrait of a</i> y by Khushwant Singh.	
I		v did the grandmother take the care of Khushwant Singh in the prose Portrait of a Lady?	
	the	at advice did the villagers and forest officers give to JadhavPayeng in prose JadavPayeng: The Forest Man of India?	
	•	at, according-to Gandhi, make the untouchables-touchable? at is Majuli in the prose <i>JadavPayeng: The Forest Man of India?</i>	
	f) Wha	at is the relation between economics and religion, according to M.K. adhi's American friend Prof. Sam Higginbottom?	
Q.3	Answer a	any two of the following questions.	08
•	be S	various qualities discussed by the poet in the poem <i>Let Me Not Pray to</i> Sheltered from Dangers.	
		importance of the lotus flower in the poem <i>The Lotus</i> . ificance of the toys in the poem <i>The Toys</i> .	
Q.4	Answer	any two of the following.	08
	•	e a descriptive essay on a vegetable market.	
ı	b) Writ miss	e a descriptive essay on the topic 'a memory of someone whom you s'.	
		at are the principles of effective communication?	
•	c) Wha	at are the principles of effective communication?	
Q.5	Ánswer a	any one of the following.	08
Q.5	Answer a a) Wha b) Wha		08

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Five Year Integrated (M. Tech.) (Semester - I) (CBCS) Examination:

				Oct/No COSMETIC TI Fundamental Ch	ECHN	OLOGY
				9-12-2023 :00 PM		Max. Marks: 80
Inst	ructio	2) Atten	os. 1 and. 2 are compuls opt any three questions f e to right indicate full ma	rom Q.	No. 3 to Q. No. 7
Q.1	A)	Cho 1)		orrect alternative. soiling point of glycerol is 197°C 200° C	b) d)	290°C 195°C
		2)	Ethyle a) c)	ene oxide on treatment v Diol Catechol	vith dilu b) d)	ite acid form Triol Phenol
		3)	Glyce a) c)	rol is a alcohol. Monohydric Trihydric	b) d)	Dihydric Both b & c
		4)	What a) c)	is the unit of viscosity? Candela Newton's	b) d)	Poiseuille None of these
		5)	Dihyd a) c)	ric alcohol is known as ₋ Diol Both	b) d)	Triol None of these
		6)	carbo a)	n.	s coval b) d)	lently bound to hybridised Sp ³ All of these
		7)	Raind a) c)	lrops are spherical in sha Capillary Downward motion	ape be b) d)	Surface tension
		8)	What a) b) c) d)	happen to viscosity of lift increases It decreases It may increase or decr		th the increase in temperature?
		9)	The c a) c)	compound containing thr Diol Alcohol	ee hydı b) d)	roxyl groups are known as Triol None of these
		10)	direct a)	•	uent pr b) d)	esent on aromatic ring is Para Both a & b

	в)	 Write true or false. Ethylene glycol is a diol. Keratin is an example of synthetic polymer. The polymer mixture of sulphuric acid and nitric acid is used as nitrating agent. Thermosetting polymer soften on heating & stiffen on cooling. Poise is the unit of viscosity. [C_nH₂n+1] OH is the general formula of alcohol. 	06
Q.2	Ans a) b) c)	wer the following questions. Explain in detail the oxidation of ethylene glycol. Explain silicon compound in detail. Explain the following terms. 1) Polymer 2) Monomer 3) Elastomer 4) Homo & Hetero polymer. Explain the fries rearrangement with suitable examples.	16
Q.3	Ans a) b)	wer the following. Explain the classification of Organic & Inorganic polymer in detail. Explain Condensation process with neat labelled diagram.	08 08
Q.4	Ans a) b)	wer the following Explain in detail Surface tension of liquid. Explain in detail the mechanism of Reimer-Tiemann reaction.	08 08
Q.5	Ans a) b)	wer the following. Explain in detail the formation of ethylene glycol by different method & give its uses. Explain the classification of polymer based on structure & based on the method of preparation.	08 08
Q.6	Ans a) b)	wer the following. Explain in detail the uses of glycerol. Define Phenol and explain in detail the different reactions of phenol.	08 08
Q.7	Ans a) b)	wer the following. Explain phosphonitrilic compound in detail. Explain the nitration of aromatic compounds with respect to the nitrating agent, generation of nitrenium ion.	08 08

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No.	Set	

Five Year Integrated (M. Tech.) (Semester - II) (New) (CBCS) Examination: Oct/Nov-2023

		Co	sme	COSMETIC TI tic Chemistry (Analy	ECH				
Time	e: 03:	ite: Fi 00 Pl	riday, M To (1) Q.	05-01-2024 06:00 PM Nos.1 and 2 are compuls	ory.	Max. Marks:	80		
				empt any Three question jures to the right indicate					
Q.1	A)	Cho 1)		ose the correct alternative. (MCQ) In electrochemical cell, the movement of electrons takes place f					
				to Cathode, Anode Anode, Anode					
		2)	,	equation is used to me Gibbs Nernst	b)	re the cell potential. Brag's Coulombs			
		3)	a)	mally, oxidising agent exi Lowest Zero	b)	their oxidation state. Highest all of the above			
		4)	meta a)	enol orange is used as me al ion. Cobalt Aluminum	b)	on indicator for the titration of Iron Sodium			
		5)	a)	al ion indicator are Insoluble Partially soluble	b)	Soluble			
		6)	a)	ind acts as in com Lewis acid Lewis base	b)	formation. Electrophile all of the above			
		7)	acid a)		b)	KOH required to neutralize free fatty gram all of the above			
		8)	a)	N is the example of Demasking Kilogram	_b) `	gent. masking all of the above			

		9)	,	is the Titrand Analyte		ce wnose	con b) d)	Titrant	n is det	ermined	i by tit	ration.	
		10)	a)	e second Solution Solvent	n	dard subs	stand b) d)	ces are n Solid Solute	nore sta	ıble in _	\$	state.	
	B)	1) 2) 3) 4) 5)	Mos If co In c Hig In th	pordinati thelation h the es he extrac other pha	plexes and on number, ring like ter value ction propertion properties propertits properties properties properties properties properties propert	re formed per (CN) is e structure indicates cess, a so the brancl	s 4, te is for low olute	he geom ormed in ester co is transf	netry of comple ntent. erred fr	complexex. com one			06 al.
Q.2	Ans a)	Defi	ne th		_	de potenti	al, o	xidation	potentia	al, reduc	tion		16
	b) c) d)	Expl Give	ain i the	n detail t applicat	the filtrat tion of Co	ion proce omplexom value, es	etric	titration	S.		value.		
Q.3	Ans a) b)	Expl	ain i		Nernst e	quation. netric ana	alysis	S.					16
Q.4	Ans a) b)	Expl	lain i		extractio	n process th exampl		• •		acteristic	C .		16
Q.5	Ans a) b)	Expl	ain i		and clas	sify the ty le and 2.6	•			ohenol ir	ndicato	or.	16
Q.6	Ans a) b)	Expl	ain r		n indicato	or. constant c	of co	mplex.					16
Q.7	Ans a) b)	Expl	lain t		of Com	plexomet oxidising			xample	S.			16

Seat	Set	D
No.	Set	<u> </u>

Five Year Integrated (M. Tech.) (Semester - II) (New) (CBCS) Examination: Oct/Nov-2023

				COSMETIC TE Natural Cosmetic A	CHN	DLOGY	
-			_	v, 07-01-2024 06:00 PM		, ,	Max. Marks: 80
Instr	uctio	2)	Att	Nos. 1 and. 2 are compulso empt any three questions fro jure to right indicate full mar	om Q.	No. 3 to Q. No. 7	
Q.1	A)	Multi	ple	Choice Question.			10
		1)	a)	ntonite produces colo Deep red Pink	our with b) d)	n safranin solution. Deep blue Green	
		2)		sins are soluble in Alcohol Benzene	b) d)	Volatile oil All of the above	
		3)	a)	nera contain% of tanı 40-45 25-32	nins. b) d)	20-30 7-33	
		4)	a)	lting point range of colophor 39-42 75-85	ny is bo b) d)	etween°C. 30-33 62-65	
		5)	a)	e colour of calamine is due t Zinc oxide Ferric oxide	b) d)	 Aluminium oxide None of the above	
		6)	,	is the oleo-gum resin. Asafoetida Benzoin	b) d)	Storax Colophony	
		7)	Tar	nnins form solution w	ith wat	er.	
		•	a) c)	Colloidal Milky	b) d)	Clear None of the above	
		8)	<u>a)</u>	rop of phoroglucinol and col stain with lignin. Blue	b)	Pink	give
			c)	Red	d)	Green	
		9)	Wh a) c)	lich of the following is ingred Fuller's Earth Both a and b	lient of b) d)	mineral origin? Mica None of the above	
		10)		iich of the following is physic ulteration? Moisture content Solubility	cal eva b) d)	luation method to dete Viscosity All of the above	ermine the

	В)	 Write true /false. Silicate minerals comprise approximately 90% of the earth's crust. Resins are electrically conductive. Tannins are found in bark, wood and fruit skins. Sophistication is the deliberate type of adulteration. The colour of talcum powder is due to aluminium oxide. Colophony contain 0.5% of resenes. 	06
Q.2	Ans a) b) c) d)	wer the following. Write down the production process of mica by dry ground process. Define and classify the resin with suitable example. How Goldbeater's skin test is performed. Write down the uses of tannic acid. Define the following: 1) Palisade ratio 2) Vein-islet number 3) Stomata number 4) Refractive index	16
Q.3	Ans a)	wer the following. Write down the source, preparation, chemical constituents and uses of Kaolin.	08
	b)	Write down the biological source, preparation, chemical constituents and uses of Benzoin.	80
Q.4	Ans a) b)	wer the following. Write down the biological source, method of preparation and chemical constituents of Black Catechu. Explain the methods of adulteration with suitable examples.	08
Q.5	Ans a) b)	wer the following. Write down the preparation, chemical constituents, chemical test and uses of Talc. Write down the biological source, preparation, chemical constituents and uses of Balsam of Peru.	08 08
Q.6	Ans a) b)	wer the following. Write down the biological source, chemical constituents and uses of Amla. Explain the chemical evaluation method for detection of adulteration.	08 08
Q.7	Ans a)	wer the following. Write down the biological source, chemical constituents and uses of 1) Ashoka	08
	b)	2) Harde Enlist the types of adulteration and write down the reasons for it. Add a note	08

Seat No.	Set	Р

Five	Yea	r Integrated (M. Tech.) (Semest		I) (New) (CBCS) Examination:				
	Oct/Nov-2023 COSMETIC TECHNOLOGY							
		English (Communication						
-		: Tuesday, 09-01-2024) PM To 06:00 PM		Max. Marks: 40				
Instr	uction	s: 1) Figures to the right indicate full m3) All questions are compulsory.	arks.					
Q.1	Mult 1)	iple Choice question. In the prose, <i>The Birth of Khadi</i> M.K. (around the poor villages.		-				
		a) sparrowsc) Crows	d)	Eagles Vultures				
	2)	Jadav's nickname in the prose <i>Jadav</i> a) Maloi c) Molai	Payei b) d)	ng: The Forest Man of India was Moloi Milao				
	3)	The grandmother in the prose <i>The Pol</i> feeds in the village. a) sparrows	rtrait (b)					
		c) pigeons	d)	Cats				
	4)	According to the poet, Rabindranath T a) patience c) rage	_	e necessary to win freedom. freedom movement Battles				
	5)	In the poem <i>The Lotus</i> won that a) Rose and Tulips c) Rose and Daisy		npetition. Lily and Daisy Rose and Lily				
	6)	The son in the poem <i>The Toys</i> disobe a) three c) seven	ys his b) d)	s father times. nine eight				
	7)	Make the adjective of the noun 'care' be. The correct option will be a) careful c) careous	by usi b) d)	ng the suffixes:-al,-ous,-ful,-less etc. careless careful & careless				
	8)	Write the correct part of speech of the sentence. Violence is an act of physical force. a) noun c) adverb	,					
		-,	/					

80

	a) b) c) d) e)	What is the most deep seated decision in India, according to Gandhi? What advice did the villagers and forest officers give to Jadhav Payeng in the prose Jadav Payeng: The Forest Man of India? What is Majuli in the prose Jadav Payeng: The Forest Man of India? Comment on the relationship between the grandmother and the author in the prose The Portrait of a Lady by Khushwant Singh. What did the grandmother in the prose The Portrait of a Lady by Khushwant	
Q.3	Ansa) b) c)	Singh do when the author returned from his studies abroad? swer the following questions (Any Two) Significance of the toys in the poem <i>The Toys</i> . The importance of the lotus flower in the poem <i>The Lotus</i> . The various qualities discussed by the poet in the poem <i>Let Me Not Pray to be Sheltered from Dangers</i> .	08
Q.4	Ans a) b) c)	swer the following questions (Any Two) Write a descriptive essay on your college. Write a descriptive essay on the topic 'a memorable trip'. Write a narrative essay on the day you were most disappointed in your life.	80
Q.5	Ans a) b)	swer the following questions (Any One) Write a narrative essay on your first day experience at your college. What is communication? Explain the communication process in detail.	08

Q.2 Answer the following. (Any Four)

Seat			Set	Р
No.				_
Five	Ye	ear In	tegrated (M. Tech.) (Semester - II) (New) (CBCS) Examination Oct/Nov-2023 COSMETIC TECHNOLOGY Analytical Chemistry (CT208)	n:
•			rsday, 11-01-2024 Max. Marks: To 06:00 PM	80
Instru	ıctic	2	Question 1and 2 are compulsory. Attempt any Three from Q.3 to Q.7. Figure to right indicate full marks.	
Q.1	A)	Cho (1)	Range of pH scale is a) 7 to 10 b) 0 to 10 c) 0 to 14 d) 7 to 14	10
		2)	When acids react with metal oxide it produces a) Water and salt b) Salts and hydrogen gas c) Salts only d) No reaction takes place	
		3)	Which of the following solution will act as a buffer? a) HNO ₂ and NaNO ₂ b) HCI and KCI c) HNO ₃ and NH ₄ NO ₃ d) NaOH and NaCI	
		4)	Beer's law states that the intensity of light decreases with respect to a) Concentration b) Distance c) Composition d) Volume	
		5)	Lambert's law states that the intensity of light decreases with respect to _ a) Concentration b) Distance c) Composition d) Volume	<u> </u> .
		6)	Which of the following is not a property or parameter of electromagnetic radiation? a) Wavelength b) Voltage c) Wave number d) Amplitude	
		7)	When the salt bridge is removed from a cell, its voltage a) Will increase b) Will decrease to half c) Will decrease to zero d) Will not change	
		8)	Electrolytes conduct electric current a) By the movement of ions b) by the movement of atoms c) By the movement of molecules d) by the movement of electrons from the cathode to anode	
		9)	Which of the following is not an example of an oxidizing agent. a) Hydrogen peroxide b) Potassium dichromate c) Nitric acid d) Hydrogen sulphide	
		10)	p ^H of natural salt is a) 7	

	B)	Fill in the blanks.	06
		1) The unit of cell constant is	
		2) The ratio of the weight of metal actually deposited to that which would have)
		resulted if all the current had been used for deposition is called as	
		3) Negative logarathium of hydrogen ion concentration is called as	
		4) is defined as a process of decomposing ionic compounds into	
		their elements by passing a direct electric current through the compound	
		in a fluid form.	
		5) All electrochemical cells are based on .	
		6) The maximum potential difference between two electrodes of a cell is	
		called as of cell.	
		<u> </u>	
Q.2	Ans	wer the following.	16
	a)	Explain Beer s-Lamberts law.	
	b)	Explain the operational definition of pH metry.	
	c)	Explain the glass electrode in details.	
	d)	Explain the types of buffer solutions.	
	 ,	ZAPIGITI ATO TYPOS OF SUITE CONTROL OF	
Q.3	Ans	wer the following.	
	a)		80
	,	diagram.	
	b)	<u> </u>	80
Q.4	Ans	wer the following.	
	a)	Explain the signifance of standard electrode potential.	80
	b)	Explain galvanic cell with schematic representation.	80
Q.5	Ans	wer the following.	
	a)	Write down the advantages and disadvantages of glass electrodes.	80
	b)	Explain the schematic representation of electro-chemical cell.	80
	_		
Q .6		wer the following.	
	a)	Write down the various applications of colorimeter and photo-electric	80
		colorimeter.	
	b)	Explain in detail the important components used in p ^H metry.	80
Q.7	۸nc	wer the following.	
U .1		Write down the advantages and disadvantages of pH metry.	08
	a) b)	Explain the instrumentation of colorimetry with neat labelled diagram.	08
	b)	Explain the institution at coloninetry with neat labelled diagraffi.	UO

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Five Year Integrated (M. Tech.) (Semester - II) (Old) (CBCS) Examination:

1 17	5 1 6 6	Oct/Nov-2023	ii) (Old) (CDCS) Examination.
		COSMETIC TECHNO	LOGY
		Fundamental Chemistry -	II (CT01209)
_		e: Tuesday, 09-01-2024 0 PM To 06:00 PM	Max. Marks: 40
Instr	uctior	ns: 1) Figures to the right indicate full marks. 3) All questions are compulsory.	
Q.1	Multi	iple Choice question.	08
	1)	The carbonyl carbon of aldehyde and ketor a) SP ³ b) c) SP ² d)	nes is hybridized. SP d2sp3
	2)	Simple meaning of eutectic point is easy a) boiling point b) c) melting point d)	freezing point all of these
	3)	The transition from liquid phase to gaseous a) Vaporization b) c) freezing point d)	phase is called as condensation melting point
	4)	Aldol condensation will not occur between to a) benzaldehyde b) c) acetone d)	formaldehyde and acetaldehyde ethylacetate
	5)	In case of one component system, at triple a) univariant b) c) trivariant d)	
	6)	It is one kind of force that helps to reduce the called as a) surface tension b) c) optical rotation d)	ne surface area of the liquid is optical density intermolecular force
	7)	For a system $S_M \rightleftharpoons S_L \rightleftharpoons S_V$ the degree of fr a) One b) c) zero d)	eedom is two none of these
	8)	When liquid molecule moves from slowest the speed of the molecule. a) Increases b) c) both d)	decreases None of these

Q.2	Answer	the	following	questions	(Any	Four
-----	--------	-----	-----------	-----------	------	------

80

- a) Explain methods of preparation of alkanes from.
 - i) unsaturated hydrocarbon.
 - ii) alkyl halide
- **b)** Explain the nomenclature of ketones.
- c) Explain the effects of temperature and pressure on viscosity.
- d) Explain four phases of transition of matter.
- e) Draw the classification chart of hydrocarbons.
- f) Explain the dipole moment.

Q.3 Write Short notes on (Any Two)

08

- a) Viscosity.
- **b)** Pinacol-pinacolone rearrangement.
- c) Reimer -Tieman reaction.

Q.4 Answer the following questions (Any Two)

80

- a) An organic compound contains 32% of carbon and 4% hydrogen and remaining is oxygen then determine the empirical formula of the compound.
- **b)** Explain the various methods of preparation of ethylene glycol.
- c) Explain Mannich reaction in detail.

Q.5 Answer the following questions (Any One)

08

- a) Explain one component sulphur system in detail.
- **b)** Explain the Intermolecular forces and their impact on the state of matter.

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Five Year Integrated (M. Tech.) (Semester - II) (Old) (CBCS) Examination: Oct-Nov-2023

			COSMETIC TEC	HNO	LOGY	
			Natural Cosmetic Age	nts-I	II (C101204)	
-			ursday, 11-01-2024 I To 06:00 PM		Max. Marks	: 40
Instr	uctio) All questions are compulsory.) Figures to the right indicate full m	narks.		
Q.1	Mul	ltiple (Choice Question.			08
	1)	a)	has been traditionally used for sep Fractional distillation Phenolic distillation		n of componants of volatile oils. Functional distillation Medicinal distillation	
	2)	a)	xylon balsamum belongs to Rananculaceae Leguminosae		Asterraceae	
	3)	a)	oin is also called Storax Mica	b) d)	Guaicum all the above	
	4)	a)	_ is commonly called as hing. Laxative Asafoetida	b)	Organic compounds None of the above	
	5)	a)	omes are also known as Petals Plant hairs	b) d)	Bark Sepals	
	6)	mate a)	_ is used for extraction of volatile or rial. Steam distillation Phenolic distillation		Functional distillation	
	7)		real extract of Arjuna shows White fluorescence Golden fluorescence	unde b) d)	er ultra-violet light. pinkish fluorescence Black fluorescence	
	8)	Galls a) c)	contain about of tannic acid 50-70% 50-50%	d and b) d)	90-10%	
Q.2	a) b) c)	What Uses What What	the following (Any Four) is Storax used for? of Black catechu. are the Properties of Tannins? is Stomata? ition of Microscopic evaluation.			80

f) Explain the Biological & Geographical sources of Behra.

Q.3	Write notes	on the	following	(Any Two)	
-----	-------------	--------	-----------	-----------	--

08

- a) Write a note on methods of Adultration.
- **b)** Give the difference between Resin and Balsam.
- c) Write a note on Calamine.

Q.4 Answer the following (Any Two)

08

- **a)** Explain the Amla with respect to their source Biological, Geographical, Chemical Constituents & its Uses.
- **b)** Discribe the Resin with their properties & distribution.
- c) Explain the Arjun with respect to their source Biological, Geographical, Chemical Constituents & its Uses.

Q.5 Answer the following (Any One)

80

- a) Discribe the chemical constituents, chemical test & uses of Black catechu.
- **b)** Describe the Trichomes & their classification with the structure of Trichomes.

Seat	Sat	D
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Five Year Integrated (M. Tech.) (Semester - III) (New) (CBCS) Examination: Oct/Nov-2023 COSMETIC TECHNOLOGY Cosmetic Technology-I

			Cosmetic		
			onday, 18-12-2023 M To 02:00 PM		Max. Marks: 80
Insti	ructio		1) Q. Nos.1 and 2 are comp 2) Attempt any Three ques 3) Figures to the right indic	tions fro	
Q.1	A)	Cho 1)	Tendency of a particular solution dissociate into ions. It is ket a) Ionization constant c) Both a) and b)	substand (nown as b)	ce in solution is to reversibly S Dissolving constant
		2)	Abbe's refractometer do r a) Telescope c) Graduated scale	not cons b)	ist of Eyepiece
		3)	Surfactants have hydroph known as a) Amphoteric c) Cationic	b)	d and hydrophobic tail; this property is Amphiphilic Non-ionic
		4)	HLB value of 0-9 indicate a) Hydrophilic c) Both a) and b)	b)	Lipophilic none of above
		5)	The component of solutio known as a) Solvent c) Both a) and b)	b)	is present in large quantity is Solute None of above
		6)	Douches are meant for apa a) Buccal cavity c) Rectal cavity	b)	Vaginal cavity
		7)	Emulsion and suspension a) Biphasicc) Both a) and b)	n are exa b) d)	ample of dosage form. Monophasic none of above
		8)	Which of the following is I a) Glass c) Plastic	b)	ndly container? Bamboo container Metal

		9)		s are used a Toothpaste Deodorant		b)	iner for _ Oils Creams	·			
		10)		determinati Rotator Refractome	on of Refracti		dex Electric o Glass sla	_ circuit			
	B)	Writ 1) 2) 3) 4) 5) 6)	Two hav Cor call Em Red Lab	ve different for centration of the decision is exactly controlled the decision is exactly colors in the decision in the decisi	olecules those unctional grou of surfactant a	ips a it wh asic o pollut ut sa	re called find the called find	functional es first ap rm. rth. acy, and o	isomers. pear in solut	tion is	6
Q.2	Ans a) b) c) d)	Write Write Write	e a r e a r e do	note on Diss wn applicati	d instilled into ociation const ons of RI and lar concentrat	ant. optid	al rotation	•		1 0 s.	6
Q.3	Ans a) b)	Write	e det		Eco-friendly pads of Garbage			erial.		30 30	
Q.4	Ans a) b)	Defi	ne S		stry. Write deta omers with ex			Optical Ro	tation.	08	
Q.5	Ans a) b)	Expl	ain s uss		Surfactant and lication of Em	_				30 30 b	
Q.6	Ans a)		e cla		f Monophasic	dos	age form	and write	detailed, not	te 0 8	В
	b)	Write	e pri		truction and w m.	orkir/	ng of Abbe	e's refract	ometer with	its 0 8	3
Q.7	Ans a) b)	Expl	lain p		n of RI and givitation and Co					08 ent. 0 8	

No.

Five Year Integrated M. Tech. (Semester - III) (New) (CBCS) Examination: Oct/Nov-2023

				Oct/Nov-2 SMETIC TECH ental Methods	HNC	LOGY	
•			esday, 19-12-2023 To 02:00 PM	i.		Max. Marks	: 80
Insti	ructio	2	Q. Nos. 1 and. 2 Attempt any three Figure to right inc	e questions from		No. 3 to Q. No. 7	
Q.1	A)	Cho (1)	ose correct altern Alkaline solutions a) less than 7 c) more than 7	have pH value b)	 7 None of the above	10
		2)	When the pH charchanges by a faction a) 10 c) 20)	the concentration of H ⁺ ions 100 200	
		3)	A spectrophotom range of electrom a) IR c) UV)	he analysis of samples in Visible All of these	
		4)	Identify the correct a) $I_t = I_0 + I_a + I_a$ c) $I_r = I_0 + I_a + I_a$	lr !	b)	ensity of Incident light. $I_0 = I_t + I_a + I_r$ $I_a = I_0 + I_t + I_r$	
		5)	When a mole of e conductivity production a) Unknown c) Specific	uced is called I		d in a solution then the conductivity. Equivalent Molar	
		6)		ric Titration l	b)	r quantitative analysis? Conductometric Titration All of the above	
		7)	Among all the cat a) NH ₄ ⁺ c) K ⁺		the h b) d)	nighest value of conductance. H ⁺ Na ⁺	
		8)	A device which cacalled as a) Electrolytic cc) Galvanic cel	cell I	ical b) d)	energy into electric energy is Half cell Salt bridge	
		9)	is used as a) Galvanomet c) Photodetect			ophotometer. Photocell both b & c	

		10)		oure water H ⁺ > OH ⁻ H ⁺ < OH		ion of H ⁺ io b) d)		and OH ⁻ ions are H ⁺ = OH ⁻ None of the above	
	B)	Write 1) 2) 3) 4) 5) 6)	Po The A p sol The der Po Cu	tue or False Wheatsto oH meter of ution. e amount nsity. tentiometro	se. one Bridge wan only be unof light absorbed in colorime tained in cor	vorks on the sed to detect or bed by a etermination eters are m	e perm sa n c	orinciple of null deflection. In the pH of an aqueous Imple solution is called Optical In the pH of an aqueous In the	06
Q.2	Ans a) b) c) d)	bewer the following questions. Define pH. Write its unit and explain pH scale. Explain the role of monochromators used in colorimetry and give its examples. Enlist different types of Conductivity cells and explain any one of them. Explain the principle of Potentiometry.						16	
Q.3	Ans a) b)	Draw	blo	•	n of pH mete of colorimet	•	ain	its construction and working.	10 06
Q.4	Ans a) b)	Expla	in ii		alomel electr e and explai		ple	e of conductometric titrations.	08 08
Q.5	Ans a) b)	Expla	iin tl iin tl	he various	tions of pH n methods for		nd	point in potentiometric	08 08
Q.6	Ans a) b)	Expla	in d		pes of condu and its princ		\ci	d-base titration curves.	10 06
Q.7	Ans a) b)	Draw	the		_		•	ge and explain its principle. ling potentiometer.	08 08

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No.	Set	

Five Year Integrated (M. Tech.) (Semester - III) (New) (CBCS) Examination: Oct/Nov-2023

			COSMETIC TECHNOLOGY Unit Operations – I	
			Vednesday, 20-12-2023 M To 02:00 PM	Max. Marks: 80
Insti	ructio	2	 Q. Nos.1 and 2 are compulsory. Attempt any Three questions from Q.No.3 to Q.No.7. Figures to the right indicate full marks. 	
Q.1	A)	Cho 1)	Studies of a fluid which is at rest is called as a) Fluid Dynamics b) Fluid Mechanics c) Fluid Statics d) Fluid Kinematics	10
		2)	Flow of fluid is turbulent when Reynold number is a) 1000 b) 2000 c) Greater than 2000 d) None of these	
		3)	With the increase in flow velocity, Reynolds numbera) Increases b) Decreases c) Same d) Independent	-
		4)	Which of the following works on the principle of impact? a) Ball mill b) Roll crusher c) Jaw crusher d) Gyratory Mill	
		5)	As the size of ball increase, the size of product a) Remains same b) Decreases c) Increases d) No effect	
		6)	The fluid energy mill involves a) Pressure b) Temperature c) Fluid d) Density	
		7)	Size reduction is used to improve the a) Physical Stability b) Dissolution Rate c) Rate Of Absorption d) All of the above	
		8)	The hammer mill operates on the principle of a) Impact b) Attrition c) Compression d) Cutting	
		9)	In sieve shaker, the particles are separated on the basis o a) Particle shape b) Particle size c) Particle density d) None of these	f
		10)	Roll crusher acts on the principle of a) Compression b) Attrition c) Impact d) None of these	

	B)	 Write true or false. 1) A simple U-tube manometer can measure negative gauge pressures. 2) Drag force can exist between two layers of liquid. 3) Reynold number has unit. 4) Vapor collected from the mixture is distillate. 5) Partial pressure depend on temperature. 6) Study of fluid behavior in motion is called hydrostatics. 	06				
Q.2	Ans a) b) c) d)	With a neat labeled diagram, write a note on a simple manometer. Write the construction principle and working of the cutter mill. Write a note on a shaking screen. Give the advantages and limitations of a belt conveyor.	16				
Q.3	Ans a) b)	size reduction with suitable examples of Equipment.	10)6				
Q.4	Ans a) b)	wer the following. What is sieve diameter? Explain the construction, principle and working of a cyclone separator along with its uses. Write a note on simple distillation.					
Q.5	Ans a) b)		10)6				
Q.6	Ans a) b)	, , , , , , , , , , , , , , , , , , , ,	10)6				
Q.7	a)	Conveyor.	10				
	b)	List the advantages and disadvantages of screw conveyor.)6				

Set	Sat	D
No.	Set	F

Five Year Integrated (M. Tech) (Semester - III) (New) (CBCS)

				COSMETIC TECHN Biomolecules – I (OLC	GY	
,			-	y, 21-12-2023 2:00 PM		•	larks: 80
Instr	uctio	2) Atter	os. 1 and. 2 are compulsory. mpt any three questions from Q re to right indicate full marks.	. No.	3 to Q. No. 7	
Q.1	A)	Cho 1)		orrect alternative. (MCQ) simplest amino acid is Glycine Asparagine	b) d)	Alanine Tyrosine	10
		2)	How a) c)	many amino acids make up a p 10 30	oroteir b) d)	1 20 50	
		3)	Enzy a) c)	mes are polymers of Hexose sugar Fatty acids	b) d)	Amino acids Inorganic phosphate	
		4)	Amir a) c)	no acids are mostly synthesised fatty acids $lpha$ –Ketoglutaric acid	from b) d)	minerals salts Volatile acids	
		5)	An e a) c)	nzyme that joins the ends of tw Polymerase Synthetase	o stra b) d)	Ligase	
		6)	Amir a) b) c) d)	no acids with aliphatic R gr. are Glycine, alanine, leucine Serine, Threonine, cysteine Lysine, arginine, Histidine Phenylalanine, tyrosine, trypto			
		7)	Pept a) c)	ide bond is a Covalent Bond Metallic Bond	b)	Inorganic bond Hydrogen bond	
		8)	The a) b) c) d)	general mechanism by which a Reducing the activation energ Increasing the activation energ Decreasing the PH value Increasing the PH value	y	yme Acts is by	
		9)	Whice a) c)	ch of the following is not a fibrou Keratin Collagen	b) d)	tein? Myosin Albumin	

		10)	Whic	_	amino aci	ids is not synthesised by the	
			a)	Arginine	b)	Glutamine	
			c)	Histidine	d)	Proline	
	B)			e or False.			06
		1)		ine is non-essential amino a		tru i ati i ma	
		2) 3)		oular proteins are having thre eucine is an example of non-			
		4)		is the natural silicates.	polar ann	mo doldo.	
		5)		mes are proteins that functi		alyst.	
		6)	Prote	eins are composed of amino	acids.		
Q.2	Ans	wer th	ne fol	lowing.			16
	a)			nino acids and the uses of A	mino acio	ds in cosmetic technology.	
	b) c)			e properties of Enzymes. y minerals and Explain the p	oroperties	of clay minerals	
	d)			chemical properties of prote		or day minorale.	
Q.3	Ans	wer th	ne fol	lowing.			
4.0	a)	Defin	e ami	ino acids & explain in detail			08
	b)	Defin	e phy	sical properties of protein &	explain th	heir uses in cosmetics.	80
Q.4	Ans			lowing.			
	a)			letail metallic soaps & expla			80
	b)	exam		essential & non-essential am	ilio acius	? explain with suitable	80
Q.5	Ans	wer th	ne fol	lowing.			
	a)			Enzymes & give its classific		etail.	80
	b)	Expla	in in (detail synthetic Surfactants.			80
Q.6	Ans			lowing.			
	a)		-	thetic silicate. Explain in det		• • • • • • • • • • • • • • • • • • • •	08 08
	b)	Схріа	111 111 (detail the mechanism of Enz	zyiiies by	Lock and Ney model.	UO
Q.7				lowing.	-4:· ·	4-9	00
	a) b)		•	tein & explain their classifica enzymes in detail and uses			80 80
	~,		55		5551110		30

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Five Year Integrated (M. Tech.) (Semester - III) (New) (CBCS) Examination: Oct/Nov-2023 COSMETIC TECHNOLOGY Cosmetic Legislations - L(CT310)

			COSMETIC T Cosmetic Legisl			
-			riday, 22-12-2023 M To 02:00 PM		Max. Marks	: 80
nstr	uctio		1) Q. No.1 and 2 are compulso 2) Attempt any Three question 3) Draw neat labelled diagram 4) Figures to the right indicate 5) Use of logarithmic table & c	s fro s & (full i	give equations wherever necessary. marks.	
Q.1	A)		ose the correct alternative.			10
		1)	If a cosmetic is manufactured another cosmetic, it is called		der a name which belongs to	
			a) Spurious cosmeticc) Misbranded drug	b)		
		2)	i	tted t	to be used in cosmetics is covered	
			under a) Schedule O c) Schedule Q	,	Schedule P Schedule R	
		3)	Animal welfare board is esta a) State government c) Central government	b)	State council	
		4)	Lipstick BIS specification for a) NMT 60 c) NMT 100	the i b) d)		
		5)	Alcoholic preparations can b period of a) 3 years c) 4 years		red in a warehouse for a maximum 7 years 5 years	
		6)	complexion of hair, skin or te are called as	eth a	sed to cleanse, improve or alter the include deodorants & perfumes	
			a) Medicinal preparationsc) Narcotic preparations	d)	Toilet preparations Psychotropic substances	
		7)	In order to obtain license for form has to be submitted. a) 34 c) 20	man b)	ufacturing of cosmetics,	

		8)	Classes of drugs prohibited to import are a) Misbranded drugs b) Drugs of substandard quality c) Adulterated drugs d) All of the above	
		9)	Following is the advisory board of India. a) DTAB b) CDL c) ADL d) CBL	
		10)	Following are the colours permitted to be used in soaps: a) Citrus red No.2 b) Pigment yellow 3 c) Phthalocyanine blue d) All of the above	
	B)	Writ 1) 2) 3) 4) 5)	Prug inspector is appointed under the section 21 of D & C act. Hatch Waxman act is related to over-the-counter medicines. The pH of shampoo should be 4 to 9. Operations related to narcotic drugs under section 8 are controlled by Central Government. Punishment for manufacturing of spurious cosmetic is imprisonment of 5 years with fine. Bonded laboratory will require service of excise officer.	06
Q.2	Ans a)		the following. t are the duties of drug inspector?	16
	b) c) d)	Write State	e about classification of medicinal & toilet preparations. e objectives of prevention of cruelty to animal act. list of dyes, colours and pigments permitted to be used in cosmetics.	
Q.3	Ans a) b)	Defin 1) 2) 3) 4) 5) Expl	Spurious cosmetic Dutiable goods Phooka Bonded manufactory Cruelty	06
Q.4			the following.	10
	a)		e in detail requirements of plant & equipment for following cosmetic 1 ulations. Depilatories Creams, lotions, emulsion	10
	b)	•)6

Q.5	Answer the following.								
	a)	Solve the following:	10						
	·	1) What are the general requirements of factory premises for							
		manufacture of cosmetics?							
		2) What are the offences & penalties under Drugs & Cosmetics Act 1940?							
	b)	What are the steps for moment of dutiable goods from bonded to another bonded warehouse?	06						
Q.6	Answer the following.								
	a)	Solve the following:	10						
	•	1) Describe BIS specifications for powdered hair dyes.							
		2) What is loan license?							
	b)	State regulatory provisions related to export of duty paid goods.	06						
Q.7	Answer the following.								
	a)	Solve the following.	10						
	,	1) What are the offences & penalties of cruelty to animals.							
		2) State requirements of factory premises for tooth powders.							
	b)	Write about constitution & functions of Animal welfare board of India.	06						

Seat	Sat	D
No.	Set	F

Examination: Oct/Nov-2023					
COSMETIC TECHNOLOGY					
Cosmetic Technology - I (CT1301) Day & Date: Monday, 18-12-2023 Max. Marks: 40					
		:00 AM To 01:00 PM			
Instructions: 1) All questions are compulsory. 2) Figures to the right indicate full marks. 3) Draw neat labelled diagram wherever necessary. 4) Use of calculator & log table is allowed.					
Q.1		Iltiple Choice Question. The phenomenon where particles approalliose aggregates called	ach	each other closely and form	80
		a) Coalescencec) Deflocculation	,	Flocculation None of the above	
	2)	HLB was developed by: a) Pauster c) Mendel	,	Griffin Gallen	
	3)	Enemas are also called as: a) Elixir c) Emulsion	,	Suspension Clystric	
	4)	Monophasic liquid dosage forms are a) true c) fine	,	solutions. course micro	
	5)	The Nernst distribution law is also know a) Raoult's law c) Partition law	b)	s: Equilibrium law Henry's law	
	6)	What type of emulsion is a w/o/w emulsi a) Primary c) Multiple	b)		
	7)	Type III glass is also known as: a) Soda lime glass c) Borosilicate glass	,	General purpose soda lime glass treated soda lime glass	
	8)	The test for packaging is a) Drop test c) shock test	,	vibration test all of the above	
Q.2	An a) b) c) d)	Write about hydrogen bonding. Define surfactants and enlist types of surfactants were defined by the surfactants and enlist materials used What is complexation?			80

- e) Define specific rotation.f) What is elixir dosage form?

Q.3	Write short notes. (Any Two)a) HLB scale.b) Factors affecting solubilityc) Emulsions	80
Q.4	 Answer the following. (Any Two) a) Write a note on dissociation constant. b) Discuss about strip & blister packaging. c) Give brief note on Suspensions. 	08
Q.5	 Answer the following. (Any One) a) Give a detailed account on environmental hazards due to different packaging materials. b) Write about structure, properties & classification of surface active agents. 	08

Seat	Sat	D
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FIV	e yea	Oct/Nov-2023	nation:
		COSMETIC TECHNOLOGY	
_		Cosmetic Engineering - I (CT1303)	
-		Vednesday, 20-12-2023 Max. M To 01:00 PM	Marks: 40
Instr	uctior	 All questions are compulsory. Draw neat diagrams and give equations wherever necessary. Figures to the right indicate full marks. Use of logarithmic table and calculator is allowed. 	
Q.1	Multi 1)	e choice questions. I comparison of Orifice meter and Venturi meter, the venturi meter has dvantage over orifice meter because Pressure head loss is more in orifice meter as compared to venture. Easy to measure the pressure difference. "Velocity head" loss is less in orifice meter. Diameter of Orifice plate is known hence easy to calculate the velocity.	i meter.
	2)	/hen the value of the Reynolds is less than 2100, the flow is b) Viscous unsteady d) both a and c	
	3)	which conveyor fluidize bed system is used b) bucket pneumatic d) belt	
	4)	he joint formed by welding the edges of two parts together is called _) Butt joint b) edge joint) T - joint d) lap joint	·
	5)	Then, fluid the moving through closed pipe is allowed to pass through arrow constriction, at point of constriction the fluid has By Low Velocity Same velocity as entrance point d) none of above	a
	6)	case of fittings the losses are mainly due to change in pressure b) change in direction change in viscosity d) None of above	
	7)	luid dynamics deals with the study of fluid at b) rest equilibrium d) none of these	
	8)	omestic water supply (Household water supply) can be measured usi) pitot tube b) rotameter) displacement meter d) orifice meter	ing

80

	c) d) e) f)	Draw neat labelled diagram of Venturi meter. What are fluid flow meters? Enlist the types. What is conveyer? Enlist classification of conveyers. What are the applications of diaphragm pump?	
Q.3	a)	e short notes on any two of the following. Welding joint	80
	b)	Fluid dynamics Flanges and expansion joints	
Q.4	Ans	wer any Two of the following:	80
	a)	Explain in detail about Reynolds experiment.	
	b)	Explain the loss of energy in fittings. Describe the construction of bucket elevator/conveyer.	
Q.5	Ans	wer any one of the following:	80
	a)	What are manometers? Enlist and explain in short regarding different manometers used.	
	b)	Describe the construction, working and advantages of belt conveyor system.	

Q.2 Answer any four of the following.a) Define pressure head; enlist the different heads present in Bernoulli's theorem.

Justify, the Reynolds number is dimensionless number.

b)

Oct/Nov-2023					
	COSMETIC TECHNOLOGY				
		Cosmetic Chemistry III (CT1304)			
		Thursday, 21-12-2023 Max. Marks: AM To 01:00 PM	40		
Instr	uction	s: 1) All questions are compulsory.			
		2) Figures to the right indicate full marks.			
		3) Use of logarithmic tables and calculator is allowed.4) Draw neat diagram and give equations wherever necessary.			
	B.B. 141				
Q.1	Multi	ole choice questions. The solubility of Protein mainly depends upon	80		
	-,	a) Temperature b) Pressure			
		c) pH of solution d) Both a and b			
	2)	The protein which is derived from amino acids only is called as			
		a) Derived protein b) Conjugated protein c) Simple protein d) Polar protein			
	3)	Which state of silicone is dangerous for human body?			
	,	a) Solid b) Liquid			
		c) Gas d) Vapour			
	4)	Proteins are mainly classified based on the a) Shape b) Constitution			
		c) Nature of molecule d) All of the above			
	5)	The manufacturing process of metallic soap involves the reaction of			
		with fatty acids. a) Metal oxide			
		a) Metal oxide b) Metal sulphide c) Metal salt d) Non-metals			
	6)	Which of the fallowing surfactant is non-toxic?			
	•	a) Anionic b) Cationic			
		c) Non-anionic d) Zwitterionic			
	7)	There are number of non-essential amino acids. a) 20 b) 10			
		c) 9 d) 11			
	8)	The active enzyme is known as			
		a) Halo-enzyme b) Apo-enzyme c) Simple enzyme d) Co-factor			
		c) Simple enzyme d) Co-factor			
Q.2		,	80		
		Vhat is fibrous protein and give its two examples? Vhat is hydrolysis of protein?			
	c)	Define oxidoreductase reaction of enzyme.			
	d)	lention the size of clay particle.			

- Define natural silicates with example. What is surface tension? e)
- f)

Q.3	Wri	ite short notes on any Two of the following.	08
	a)	Explain in detail lock and key model of enzyme.	
	b)	Write a note on Zwitterionic and cationic surfactant.	

Q.4 Answer any two of the following.a) Explain in detail the chemical properties of protein and mention there uses in cosmetics.

b) Explain in detail the silk powder and toxicity of silicone.

Write a note on metallic soap and its synthesis.

c) Write a note on prosthetic group co-enzyme with its function.

Q.5 Answer any one of the following.

c)

08

80

- a) Explain the classification of enzyme based on its reaction.
- **b)** Explain the properties and chemistry of silicones.

		SLR-DF-30			
Seat No.		Set P			
Five	Five Years Integrated M. Tech (Semester - III) (Old) (CBCS) Examination: Oct/Nov-2023 COSMETIC TECHNOLOGY Drugs & Cosmetics Laws - I (CT1308)				
•		Friday,22-12-2023 Max. Marks:40 AM To 01:00 PM			
Instru	ction	 1) All questions are compulsory. 2) Figures to the right indicate full marks. 3) Draw neat diagrams and give equations wherever necessary. 4) Use of logarithmic table and calculator is allowed. 			
	Multi 1)	No objection certificate (NOC) from Local Authority of Fire Brigade is obtained to manufacture which cosmetic? a) Face powder b) Nail polish c) Tooth paste d) Lipstick			
;	2)	The cosmetics used to remove unwanted hair from hands and legs are known as a) Eyelashes b) Toilet soaps c) Aerosols d) Depilatories			
	3)	 Which of the following is the full form of CPCSEA committee a) Committee for the Purpose of Control & Supervision of Experimentation on Animals b) Council for the Purpose of Control & Supervision of Experimentation on Animals c) Centre for the Purpose of Claiming & Supervision of Experimentation on Animals d) Committee for the Purpose of-Control &- Sacrificing of Experimentation on Animals 			
•	4)	Which section number governs the prohibition of import of cosmetics? a) 12 b) 13 c) 9 d) 10			
	5)	A person who does not have his own arrangements to manufacture cosmetics, avails himself the arrangements of other person is known to have which type of license?			

b) Retaild) Wholesale

a) Restricted

A cosmetic is deemed to be spurious if, _

a) if it contains a colour other than prescribedb) if it is not labelled in the prescribed manner

c) if it contains wholly or partly of decomposed substance

cosmetics to remove hair on hands, legs or under arms?

d) if it is manufactured under a name which belongs to another cosmetic

How much space in sq mts. Is required for the manufacturing of _____

b) 10

d) 100

c) Loan

a) 1000

c) 10000

6)

7)

	8)	"This product should not be used for dyeing eyebrows as it may lead to blindness", such a caution is printed on which Cosmetic label? a) Cream b) Mascara c) Nail polish d) Deodorant	
Q.2	a) b)	Give the list of equipments to manufacture Aerosols. Define Government analyst. What is Part I & Part II of Schedule Q? What is the penalty for manufacturing misbranded or cosmetics not of standard quality? Write the general labelling conditions on the wrappers of toilet soaps? Discuss any 2 offences & penalties related to PCA, 1960.	08
Q.3	Ans a) b) c)	swer the following. (Any Two) How warehousing of alcoholic preparation is done? Constitution & composition of Drugs Technical Advisory Board. Distinguish between Non-bonded and Bonded lab.	08
Q.4	An: a) b) c)	How license is obtained for manufacturing medicinal & toilet preparations, as per MTP, 1955? Discuss the schedule in relation to the manufacture of cosmetics. Discuss the plant, space & requirements to manufacture Tooth powders.	08
Q.5	Ans a) b)	Swer the following. (Any One) Discuss the plant, requirements, space to manufacture Eye cosmetics. Write an exhaustive note on Government analyst w.r.t. definitions, qualification and duties.	08

Seat	Set	Р
No.		•

Five Year Integrated M. Tech. Course (Semester - IV) (CBCS) Examination: Oct/Nov-2023

		COSMETIC TEC	CHNOLOGY	
		Cosmetic Technolo	ogy - II (CT1401)	
		ate: Monday, 18-12-2023 3:00 PM To 06:00 PM	Max. Marks: 4	0
Instr	ucti	ions: 1) All questions are compulsory. 2) Answer to all questions are to b 3) All questions carry equal marks 4) Figures to the right indicate full 5) Draw neat labelled diagram who 6) Use of calculator & log table is	marks. nerever necessary.	
Q.1	C h	noose the correct alternative of sodium alginate is used for pr a) 1.5 -2% c) 10%	_	8
	2)	alkalise are used to prepare a consistency. a) NaOH c) Na ₂ CO ₃	cream with fine texture and excellent b) KOH d) None	
	3)	According to IP, preservative must be a a) Gram positive bacteria c) Yeast	effective against b) Gram negative bacteria d) All of the above	
	4)	Prickly heat powder is an example of _ a) Body c) Compact	powders. b) Face d) Medicated	
	5)	wax has extensive importance in a) Ceresin c) Both a) and b)	n cosmetics. b) Spermaceti d) None of these.	
	6)	Melting point of lipsticks should be a) Less than c) Equal to	normal body temperature. b) More than d) All of the above	
	7)	The HLB system is used to classify a) Flavors c) Surfactants	b) Colours d) Perfumes	
	8)	Compact powders are commercially m a) Dry c) Damp	nanufactured by method. b) Wet d) Dilution	

Q.2	Ans	wer the following. (Any Four)	80
	a)	Write difference between flocculated and deflocculated suspension.	
	b)	Define ointment and classify them.	
	c)	Write a note on different methods of preservation of cosmetics.	
	ď)	Write down the characteristics of powders.	
	e)	Define the cosmetic emulsion and enlist their rational in formulation.	
	f)	Write short note on gel.	
Q.3	Wri	te short notes. (Any Two)	08
۵.0	a)	Discuss in detail ointment bases.	
	b)	Write down the formulation of cosmetic powders.	
	c)	Write a note on creaming of emulsion and how to solve them.	
	C)	white a note on creaming of emulsion and now to solve them.	
Q.4	An	swer the following. (Any Two)	08
	a)	Discuss in brief identification of emulsion.	
	b)	Define cosmetics. Discuss in detail sources of contamination in cosmetics.	
	c)	Define powder, classify them and elaborate evaluation of powders.	
	-,		
Q.5	Ans	wer the following. (Any One)	08
Q.5	Ans a)	wer the following. (Any One) Define preservative and classify them. Discuss its methods of	80
Q.5	_	9	80
Q.5	a)	Define preservative and classify them. Discuss its methods of effectiveness determination.	80
Q.5	_	Define preservative and classify them. Discuss its methods of effectiveness determination. Define disperse system and classify them. Discuss in detail emulsifying	80
Q.5	a)	Define preservative and classify them. Discuss its methods of effectiveness determination.	80

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No.	Set	<u> </u>

Five Year Integrated M. Tech. (Semester- IV) (CBCS) Examination:

Oct/Nov-2023						
	COSMETIC TECHNOLOGY					
	Instrumental Methods of Analysis – II (CT1402)					
-		e: Tuesday, 19-12-2023 DPM To 06:00 PM			Max. Marks: 40	
Instr	uctior	ns: 1) All questions are compulsory. 2) Figures to right indicate full mar	ks.			
Q.1	Multi	ple Choice Question.			08	
	1)	Abbe refractometer is working on prina) Vertical angle c) Parallel angle		based on Critical angle Perpendicular angle		
	2)	In conducting cell sheet is use a) Platinum c) Plastic	ed. b) d)	Glass Aluminium		
	3)	Refractive index of substrate is a fun a) Length c) Critical angle	ction b) d)	of a wavelength None of the above		
	4)	Electrical conductance is in accordar a) Ohms law c) Ohms law and Snell's law	b)	Snell's law		
	5)	The pH value of neutral solution is _ a) 5 c) 9	b)	7 4		
	6)	Raman shift are typically reported in a) Wavelength c) Frequency	b)	_ unit. Wave number Wave energy		
	7)	Critical conductivity an electrolyte so a) Concentration c) Dipole movement				
	8)	In conductivity cell temperature shou a) constant c) Both changeable constant	ld be b) d)	Change None of the above		
Q.2	a) b) c) d) e)	ver any four of the following. (Any I Explain how care of combined glass of Draw the neat labiled diagram of pH r Explain the principle of Raman spectr Explain perfectly elastic collision and Explain optical rotation in detail. Explain the factors affecting the condi	electroneter oscop in ela	by. stic collision.	08	

Q.3	Write a) b) c)	Write a short note on Refractive index. Write a short note on Precipitation titration. Write a note on standard operating procedure (SOP) of pH meter.	80
Q.4	Ansv a) b) c)	wer the following. (Any Two) Explain following important parameter used in conductometry i) Current source ii) Conductivity meter iii) Electrode Write down various application of raman spectroscopy. Explain the set-up of polarizer to analyser used in pH metry.	08

80

- Q.5 Answer any one of the following.
 a) Explain the construction, working and applications of conductometry in detail.
 b) Explain classical principle and quantum principle in raman spectroscopy in detail.

Seat	Sat	D
No.	Set	

Five Year Integrated M. Tech. (Semester- IV) (CBCS) Examination:

			Oct/Nov-2		
			COSMETIC TECH		
Time	: 03:00) PM is: 1	Cosmetic Engineerin ednesday, 20-12-2023 I To 06:00 PM) All questions are compulsory.		Max. Marks: 40
		2) Figures to the right indicate full m	arks	
Q.1	Multi 1)	In a a)	choice questions. Lame	b)	orocess at the outset. Continuous process None of above
	2)	a)	issivity for black body is more than 1 equal to 1	b) d)	less than 1 None of above
	3)	a)	e expression $Q=\rhoAT^4$ is known as Fourier equation Newton Reichmann equation	b)	 Stefan-Boltzmann equation Joseph-Stefan equation
	4)	give a)	ody whose absorptivity is constant en temperature is called White body Black Body	b)	I wavelengths of radiation at a Grey Body Silver Body
	5)	a)	e main component of Dehumidifier i Condenser Compressor		 Evaporator All the above
	6)	a)	e liquid (e.g., water) only act as hea Primary refrigerant Tertiary refrigerant	b)	rier is known as Secondary Refrigerant All the above
	7)		ntify the dimensionless number fror Reynolds Number Angular displacement	n fol b) d)	lowing. Atomic mass Abb number
	8)		en the Hot and cold fluid enters in t arrangement is known as Parallel flow Counter current flow	he a b) d)	pparatus from same side such Dynamic Flow Perpendicular flow

Q.2	Ansa a) b) c) d)	wer any four of the following. Comment on the mechanism of natural convection. Define and classify heat exchangers. Define sensible heating and sensible cooling. If air consists of 77% by weight of nitrogen and 23% by weight of oxygen calculate: 1) The mean molecular weight of air 2) The mole fraction of oxygen (Given values: Molecular Weight: C-12, H-1, O-16, N-14, Cl-35.5, Na-23) Draw neat labelled diagram of perfect black body.	08
	f)	What do you mean by Batch process and continuous process?	
Q.3	Writa) b) c)	e short notes on any two of the following. Explain Storage type of heat exchangers. What do you mean by psychometric charts? Draw a psychometric charts containing 1) Constant Dry bulb Temperature. 2) Humidity Ratio. 3) Wet bulb temperature What is forced convection and establish equation for rate of heat transfer for same.	08
Q.4	Ans a)	wer any Two of the following. What do you mean by Dehumidification? Explain approaches to Dehumidification.	80
	b)	Write down applications of refrigeration and Consider amixture of Air and Water vapour weights about 80 kg, determine the humidity of the air if there is 1.4 kg of water vapour in the mixture.	
	c)	Explain in detail about Scrapped Surface Heat Exchangers.	
Q.5	a)	wer any one of the following. What is conduction? State fouriers law for conduction of heat through metal wall. Describe liquid to Liquid Interchangers in Detail	08
	b)	What is Air conditioning? Explain Split Air-Conditioning System with diagram. Write down application of Air conditioning.	

Seat	Sat	D
No.	Set	

Five Year Integrated (M. Tech.) (Sem-IV) (New) (CBCS) Examination:

			Oct/Nov-2					
	COSMETIC TECHNOLOGY							
			Cosmetic Chemistr	y IV	(CT1404)			
•			ursday, 21-12-2023 I To 06:00 PM			Max. M	larks: 40	
Instru	nstructions: 1) All questions are compulsory. 2) Figures to the right indicate full marks.							
Q.1	Multi	ple (choice questions.				08	
	1)	-	ds are molecule.					
		,	Non-polar	b)				
		,	Semi polar	d)	All of the above			
	2)	rooi	urated fatty acids are while m temperature.		·	ea	t	
		,	Solid, liquid	,	liquid, solid			
		,	Solid, solid	d)	liquid, liquid			
	3)		umectants attracts the from					
		,	Oxygen Moisture	b) d)	water Carbon			
	41	,		,				
	4)		humectants which does not conta Usual humectants	-	Normal humectants	ı as	·	
		,	Abnormal humectants	,		8		
	5)	The	group of vitamins are known as _	,	_			
	•,		Polymer	b)	Monomer			
		c)	Vitamers	d)	None of the above			
	6)		normal level of 'Ca' & 'P' in blood					
		,	Vitamin D	,	Vitamin A			
		,	Vitamin C	,	Vitamin E			
	7)		emically, the natural pearls are con Calcium nitrate	-				
		a) c)	Calcium carbonate	b) d)	Calcium, chloride Calcium carbide			
	8)	,	arls are soluble in	ω,				
	0,		Alcohol	b)	Acid			
		c)	Vinegar	ď)	Benzene			
Q.2	Aneu	vors	any four of the following				08	
Q.Z			ne Saponifiable lipid with its exam	ple.			UO	
	-		e down the properties of Waxes					
	,		e down the uses of Humectants in					
	•		ne fat soluble vitamins and give the down the biochemical reaction o					
	5) 6)		cribe physical properties of Pearl.	ı vild	IIIIII ∟.			

Q.3	a) Definb) Expl	ne and explain the lon Exchange Resin with its structure and types. ain the uses of Fatty Acids in Cosmetics. ne the lipids and explain in detail the structure of lipids.	08
Q.4	a) Giveb) Expl	Iny two of the following It the sources of Vitamin A and explain its metabolic role. It is ain in detail the recent amendments for water as per IP, BP & USP. It is ain the Electrolytes as a viscosity modifier.	80
Q.5	a) Write	ny one of the following: e down the various steps involved in the production of Fatty Acids. ain in detail the production of natural pearls.	80

Seat	Sat	D
No.	Set	

Five Year Integrated (M. Tech.) (Semester - IV) (CBCS) Examination: Oct/Nov-2023

		Oct/Nov-2023	
		COSMETIC TECHNOLOGY Drug & Cosmetic Laws – II (CT1409)	
-		e: Friday, 22-12-2023 Max. Mark 0 PM To 06:00 PM	s: 40
Instr	uction	 ns: 1) All questions are compulsory. 2) Figures to the right indicate full marks. 3) Draw neat labeled diagram and give equations wherever necessary. 4) Use of logarithmic table and calculator is allowed. 	
Q.1	Choo 1)	ose the correct alternatives from the options. How many members constitute Ex-officio of PCI? a) 3 b) 5 c) 1 d) 8	80
	2)	u/s Central Register is prepared & maintained by the PCI. a) 15 b) 15A c) 32 d) 32A	
	3)	Adolescent means a person who has completed of his / her age. a) 15 b) 16 c) 17 d) 18	
	4)	The Education Regulations (ER) is approved by the u/s a) Central Council, 10 b) State Council, 10 c) State Govt; 10 d) Central Govt; 10	
	5)	Which of the following is not the Ex-officio member of Central Council? a) NCB b) DGHS c) DCDL d) DCI	
	6)	The building premises for manufacturing drugs and cosmetics shall conform to the conditions laid down by a) Factories Act, 1947 b) Factories Act, 1948 c) Factories Act, 1949 d) Factories Act, 1941	
	7)	Failure to surrender certificate of registration is punishable with fine upto? a) 500 Rs. b) 50 Rs. c) 10 Rs. d) 100 Rs.	
	8)	In which language an application for patent be filed with the Indian Patent Office? a) English or Hindi b) English or Regional Language c) Both a & b d) English only	

Q.2	Ans a) b) c) d) e) f)	wer the following (Any Four) Give the objective for The Pharmacy Act, 1948. Define Drug and Displaced person. Define Central register. What is the term of patent? Give the scope of Shop Establishment Act. Define Establishment.	08
Q.3	Writ a) b) c)	te Notes. (Any Two) Functions of Pharmacy Council of India. Constitution & composition of Central Council. What types of inventions are non-patentable in India?	80
Q.4	Ans a) b) c)	wer the following (Any Two) Discuss the offences and penalties of The Pharmacy Act, 1948. Discuss various forms / documents required while filing a patent application in India? What documents are required for registration of a firm as per S&E Act?	08
Q.5	Ans a) b)	wer the following (Any One) Discuss the offences & penalties of Shop & Establishment Act. What are the various health provisions provided by the factory to the workers as per Factories Act, 1948?	80

					SLR-	DF-	39
Seat No.					;	Set	P
Five	e Yea	ar Integrated N		ov-2023 ΓΕCHNO		natio	n:
		e: Friday, 05-01-2 D AM To 01:00 Pl	024	•	Max. I	Marks	: 40
Instr	uctior		ns are compulsor the right indicate				
Q.1			Iternatives from	n the option	ons.		80
	1)	What is the fam a) Rutaceaec) Rosaceae	iy or varilla?	b) d)	Anacardiaceae Orchidaceae		
	2)	What are the ba a) Salty c) Sour & Bitte	sic taste flavors? r	b) d)	Sweet All of the above		
	3)	A chassis is made a) Round wood c) Both A & B		b) d)	Rectangular wooden frame None of the above		
	4) Name the follow		ing glassware-				
		a) RBFc) Oil Separate	or	b) d)	Condenser Boiler		
	5)	Essential oils ar a) Perfumes c) Medicine	e used for	b) d)	Food Flavouring All of the above		
	6)	In which distillat water? a) Steam distil c) Steam + Hy	lation	t come into b) d)	o direct contact with boiling Water distillation None of the above		
	7)	What is the idea a) Hard surfac c) Soft surface		he fat corp b) d)			
	8)	In the gummosis a) Gums c) Gum Resins	•	se decom _l b) d)	oosition leads to form Resins None of the above	·	

Q.2	Ans a) b) c) d) e) f)	wer any four of the following. Define the resin and their properties. What are the carrier oils? Give their examples? Draw the diagram of Steam distillation unit. Draw the diagram of percolator. What is ethanol? Draw the Flow diagram of water distillation method.	08
Q.3	Writ a) b) c)	te short notes on any two of the following. What are the properties and uses of Pinene? Write a note on Vanilla. Define & classify Resins & give the properties of Resins.	08
Q.4	Ans a) b) c)	wer any two of the following Write the details of Balsam Peru. Write the details of Peppermint. Explain the extraction procedure by Soxhlet apparatus with neat labelled diagram.	08
Q.5	Ans a) b)	wer any one of the following. Write down details for both Double Maceration and Triple Maceration Process. Write a note on steam + water distillation with their advantages and disadvantages.	08

		92.12.	••	
Seat		Set	D	l
No.		Sei	<u> </u>	l
Five Year Integra	, , ,	Semester - V) (New) (CBCS) Examination	n:	

LIVE	Oct/Nov-2023					
			COSMETIC TEC			
			Cosmetic Technolo			
			nday, 07-01-2024 1 To 01:00 PM	, ay .	Max. Marks:	40
Instr	uctio	ons: 1) All questions are compulsory.			
) Answer to all questions are to be			
			Figures to the right indicate full rDraw neat labelled diagrams wh			
			i) Use of calculator and log table is			
Q.1	M u 1)	itipie	choice questions are called as sport cream.			80
	',	a)	_ die daned as sport sream. All-purpose cream	b)	Massage cream	
		c)	Cold cream	d)	Vanishing cream	
	2)		_ is an example of inorganic hume			
		a) c)		b) d)	Sodium lactate Sorbitol	
	3/	C)	is referred as suicidal antioxidar	,	Corbitor	
	3)		_	ււ. b)	Alpha lipoic acid	
		c)	Melatonin	ď)	Selenium	
	4)		_is a non saponifying alkali used			
		a)	Sodium hydroxide Potassium hydroxide	b) d)	Sodium carbonate None of the above	
	5)	C)	are water soluble, pulverized mir	,		
	3)		_are water soluble, pulverized filli Bath oil	b)	Foam bath	
		c)	Bath bombs	ď)	Bath salts	
	6)		h of the following type of plastic is			
		,	PP Both a and b		PET None of the above	
	7)	C)		d)		
	7)		_ is also known as sodium hyaluro Butylene glycol	b)	Propylene glycol	
		c)	Hyaluronic acid	d)	Urea	
	8)	Antio	xidants break up the chains forme			
		a) c)	Initiation Termination	b) d)	Propagation None of the above	
		C)	Terrimation	u)	Notic of the above	
Q.2	_		any four of the following	نطمنصد	7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7	80
	a) b)		nguish between cold cream and va hygroscopicity is measured explai		•	
	c)	Defin	e free radical and write down it's	chara	cteristics.	
	d)		down the differences between so	•	•	
	e) f)		are requirements for a good bubb skin becomes dry?	אם אוכ	iui:	
	•	•	•			

Q.3	Write short notes on any two of the following.	08
	a) Write a short note on Cleansing cream	

- **a)** Write a short note on Cleansing cream.
- **b)** Write a short note on Butylene glycol.
- c) Write a short note on floating oils.

Q.4 Answer any two of the following.

08

- **a)** What factors to be considered during selection of antioxidants and write down the procedure for reduced glutathione as in-vivo antioxidant screening method?
- **b)** Give the detail account on thickener and miscellaneous additives used in the formulation of foam bath.
- c) Define the soap and explain the evaluation parameters of soap.

Q.5 Answer any one of the following.

08

- a) Write down the stability and safety of the following:
 - 1) Polyethylene glycol
 - 2) Sorbitol
- b) Explain in detail syndet.

Seat	Sat	D
No.	Set	

Five	Yea	r Integrated (M. Tech.) (Semester - V) (New) (CBCS) Examination Oct/Nov-2023	1:
		COSMETIC TECHNOLOGY	
		Principles of Cosmecutics – I (CT1503)	
_		e: Tuesday, 09-01-2024 Max. Marks: 4	0
Instr	uction	 1) All questions are compulsory. 2) Figures to the right indicate full marks. 3) Draw neat labelled diagrams and give equations whenever necessary. 4) Use of logarithmic table and calculator is allowed. 	
Q.1	Multi 1)	ple choice questions. Decrease in particle size of solid results in solubility. a) Increased b) Decreased c) Remains unchanged d) depends on the crystal structure	8
	2)	Identify the factor which factors influence solubility. a) Temperature b) Crystal properties c) pH d) All of the above	
	3)	Surfactant the interfacial tension between drug particles and liquid. a) Increases b) Decreases c) Has no effect on d) Improves	
	4)	Suspending agent are also known as a) Hydrophilic colloids b) Hydrophobic colloids c) Both a and d) None of these	
	5)	W/O emulsions is called as a) Aqueous emulsion b) Oily emulsion c) Alcoholic emulsion d) Electrophoresis	
	6)	The substances which are added to stabilize the emulsions are called a) Dialyser b) Aggregates c) Emulsifying agent d) Peptizing agent	
	7)	Controlled flocculation of particles is obtained by adding a) Flocculating agents b) Suspending agents c) Wetting agents d) All of these	
	8)	Increase in temperature causes in surface tension. a) Lowered b) Remains constant c) Increase d) Decreases	
Q.2	a) Vb) Vc) Ed) E	ver any four of the following. Write down the limitations of Raoult's law. What do you mean by Sedimentation volume? Explain the term saturated and supersaturated solution. Define phase inversions.	8

- f) What do you mean by Liquefication of gasses?

Q.3	Writa) b) c)	Write a note on stability of suspension. What is solute - solvent interaction? Write the mechanism and causes for solute-solvent interaction. What is coalescence? Explain factors affecting it.	80
Q.4	Ans a) b) c)	wer any two of the following. Write a note on HLB scale. Explain Critical solution temperature and mention their applications. Distinguish between ideal solution and real solution.	80
Q.5	Ans a) b)	wer any one of the following. Define Surface tension. Explain the principle involved in determination of surface tension by capillary rise method. Give its limitations. Define suspension. Classify them in detail and write advantages and disadvantages of suspensions.	80

Seat	S ₀₄	D
No.	Set	

Five Year Integrated (M. Tech.) (Sem-V) (New) (CBCS) Examination: Oct/Nov-2023

				METIC TEC			
_			,	y Culture –	· I (C	•	
-			ursday, 11-01-2024 1 To 01:00 PM			Max	k. Marks: 40
Instr	uctior	3) All questions are co 2) Figures to the right 3) Draw neat labelled 4) Use of logarithmic t	indicate full m diagrams and	d give	equations whenever nece	essary.
Q.1	Multi	iple	choice questions.				08
	1)	a)	overactive sebaceous Excessive sweating Oily skin	s gland produ	b) d)	Especially foul-smelling s Dry skin	sweat
	2)	In b a) c)	peauty therapy which Infrared Blue rays	rays are used	d in ra b) d)	adiation? UV rays Red rays	
	3)	In c a) c)	cosmetology what is to Barber Cosmetologist	rained person	b) d)	ed? Dermatologist Hair dresser	
	4)	a)	ere is the thickest lay Scalp Palms	er of skin loca	ated o b) d)	on the body? Legs Sole of feet	
	5)	Wh a) c)	ich among the followi Tesla Oudin	ng current is	used b) d)	by beautician? Diathermy None of above	
	6)	a) c)	Vitamin is require Vitamin A Vitamin E	d for the grow	vth of b) d)	collagen. Vitamin C Vitamin D	
	7)	Wa a) b) c) d)	rm oil is in hot oil mas It needed to be melt It gets easily penetra It is easy to handle All of above		cause	e	
	8)	In v a) b) c) d)	which direction wax she In the direction of hare In any direction In opposite direction Clients' choice	ir growth			

Q.2	Ans	wer any four of the following.	80
	a)	Enlist facial ingredients.	
	b)	Write the functions of skin.	
	c)	Name the tools used for eyebrow shaping.	
	d)	What are different hair removal techniques.	
	e)	Define essential oil. Give two examples.	
	f)	Enlist the steps involved in facial.	
Q.3	Writ	e short notes on any two of the following	08
	a)	What are essential oil? Write extraction methods of essential oil.	
	b)	What are skin blemishes? Enlist them.	
	c)	Differentiate between face mask & face pack.	
Q.4	Ans	wer any two of the following.	08
	a)	What are the different types of face mask? What precaution should be	
	-	taken while applying face mask.	
	b)	Describe the methods used for identification of skin type.	
	c)	Write a note on blending of essential oil.	
Q.5	Ans	wer any one of the following.	08
	a)	What is threading? Write the procedure for eyebrow shaping.	
	b)	Write a note on cleansing.	
	•	-	

	_	
Seat	Sat	D
No.	Set	

Five Year Integrated (M.Tech.) (Semester - V) (New) (CBCS) Examination: Oct/Nov-2023

			COSMETIC TEC Pharmacology & Intera	HNO		
-			iday, 29-12-2023 1 To 01:00 PM	CliOi	Max. Marks:	40
Instr	uctior	3) All questions are compulsory. 2) Draw neat labelled diagrams and 3) Figures to the right indicate full m 4) Use of logarithmic table and calc	narks		
Q.1	Multi 1)	lde a)	choice questions. ntify the factor effecting drug absor Drug concentration Vascularity of absorbing surface	b)	Aqueous solubility	08
	2)	a)	cutaneous absorption of lipid solub Hair follicle Sebaceous gland		ug is probably through Sweat glands All the above	
	3)	a)	allergic contact dermatitis, sensitize Keratinocytes Erythrocytes	ers ard b) d)		
	4)	,	can be administered orally in sl Glutathione Kojic acid	kin w b) d)	Salicylic acid	
	5)	a)	cape or leakage of sweat in stratum Miliaria rubra Miliarea crystalina		neum is called Prickly heat Miliara profunda	
	6)	trea	ntence A: A shampoo with alkaline ated hair from either permanent dye ntence B: Over use of hair cosmet True; False False; False	eing o ic ma	or permanent waving.	
	7)	Hal a) b) c) d)	itosis is A malodour due to intrinsic factor. A malodour due to extrinsic factor Both A and B Allergic lesions of mouth cavity.			
	8)	a) c)	is a photosensitizing drug used Retinoid Urea	in tre b) d)	eatment of psoriasis Psorlene Salicylic acid	

Q.2	Ans	wer any four of the following.	80
	a)	Define drug absorption and enlist the factors affecting the drug absorption.	
	b)	Classify dental desensitizing agents	
	c)	Comment on Hair Damage.	
	d)	Define -	
		1) Dermatology and	
	_	2) In vivo method	
	e)	Explain inflammation with its cardinal signs.	
	f)	What do you mean by intrinsic aging?	
Q.3	Write	e short notes on any two of the following.	08
Q.0	a)	What is Miliarea? Describe with its types.	UU
	b)	Explain etiology of acne formation.	
	c)	What is Psoriasis explain its types in short.	
	-,	γ _F - 2 · 2 · 2 · 3 · 3 · 3 · 3 · 3 · 3 · 3 ·	
Q.4	Ansv	wer any Two of the following:	08
	a)	Define dental caries and explain factors responsible for dental caries.	
	b)	Write about Tyrosinase Inhibitors.	
	c)	Explain combined drug effect. (Drug-drug interaction).	
	_		
Q.5		wer any one of the following:	80
	a)	What is dandruff elaborate factor responsible for it and explain treatment of dandruff.	
	b)	What are anti-aging drugs? Write down factors responsible for aging and	
	-	Explain histological features of skin in aging along with its treatment.	

Seat No.	Set P

Five Year Integrated M. Tech (Semester-VI) (New) (CBCS) Examination:

		COSMETIC T Perfume I	ECHN	OLOGY			
		e: Friday, 05-01-2024 0 PM To 05:00 PM	`	•	Max. Marks: 80		
Instr	uctio	ns: 1) All questions are compulsory 2) Figures to the right indicate f 3) Draw a neat diagram and eq	ull mark				
Q.1	Multi 1)	ple Choice Questions What is the molecular formula of (a) C ₉ H ₆ O ₂ c) C ₉ H ₆ OH	Coumar b) d)	in? C ₆ H ₉ O ₂ None of the above	08		
	2)	Lauraceae is the Family of a) Sandalwood c) Lemon	b) d)	Cinnamon None of the above			
	3)	The evaporation period of the Hea a) 20 to 60 minutes c) More than 60 minutes	art note: b) d)				
	4)	In which of the following is fixative a) Animal c) Resinous	b) d)	Synthetic All of the above			
	5)	Identify the following animal used to make perfume fixators.					
		a) Musk c) Ambergris	b) d)	Civet none of the above			
	6)	In presence of what, the compour a) Nickel c) Zeolites	nds und b) d)	ergo catalytic hydroger Iron All of the mentioned	nation?		
	7)	The citronellal used for a) Flavoring agent c) Fragrance in soaps	b) d)	Insect repellent All of the above			
	8)	Oxidation is the same as a) Addition of hydrogen c) Addition of oxygen	b)	Removal of oxygen Removal of Nitrogen			

			_		
Q.2	Answer any four of the following.				
	a)	Write a note on Top notes.			
	b)	How Do You Identify Perfume Notes.			
	c)	Define Floral Notes.			
	ď)	Define Spice Notes.			
	e)	Define Nitration & give the examples of Nitrating agents.			
Q.3	Wri	ite short notes on any two of the following.	08		
	a)	Write a note on Balsam of Peru.			
	b)	Explain the Preparation Benzyl Benzoate with reaction.			
	c)	Explain the Preparation Diethyl Phthalate with reaction.			

Q.4 Answer any two of the following.a) Explain the synthesis of Anisaldehy

80

SLR-DF-45

- a) Explain the synthesis of Anisaldehyde from anethole via oxidative cleavage.
- **b)** Write a note on Ambergris Fixatives.
- c) Explain the synthesis of Cinnamaldehyde.

Q.5 Answer any one of following.

80

- a) Define Esterification with reaction.
- **b)** What are the precautions taken Synthesis of Benzyl benzoates?

Seat	Sat	D
No.	Set	

Five Year Integrated (M. Tech.) (Semester - VI) (New) (CBCS) Examination: Oct/Nov-2023

	COSMETIC TECHNOLOGY							
		Cosmetic Technolog	y I\	/ (CT1602)				
•		e: Sunday, 07-01-2024 0 PM To 05:00 PM		Max. Marks: 40				
Instr	uctior	ns: 1) All questions are compulsory. 2) Figures to the right indicate full m	narks					
Q.1	Multi	iple Choice Question.		08				
	1)	is an example of film modifier.						
		a) Dimethicone	b)	Talc				
		c) Xylitol	d)	Chitosan				
	2)	Polysorbate 60 is an						
	•	a) Emollient	b)	Abrasive agent				
		c) Emulsifying agent	d)	None of the above				
3) A concentration of % of hydroquinone produces redness and burning sensation.				ne produces redness and				
		a) 2	b)	3				
		c) 1.5	ď)	5				
	4)	Film forming agents are used in the ra	nge	of % in face packs and masks				
	-,	a) 10-30		40-80				
		c) 2-10	ď)	None of the above				
	5)	gives a strong brilliant bluish st	ain					
	٥,	a) Tetrachloro tetrabromo fluorescei						
		b) Acid Eosin	1.					
		c) Dibromo-fluorescein						
		d) None of the above						
	6)	Metal Stearates are used in concentra	tion	hetween % in the				
	Ο,	manufacturing of compressed rouge p						
		a) 0.2-2						
		c) 0.5-3	ď)	2-7				
	7)	Kohl eyeliner available in form.						
	- ,	a) Pencil	b)	Pressed powder				
		c) Both a and b	ď)	None of the above				
	8)	mimic the properties of natural	mine	eral bath or hot springs.				
	-,	a) Foam bath	b)	Bath salt				
		c) Bath oil	d)	None of the above				

Q.2	Ansv i) ii) iii) iv) v) v)	Wer any four of the following: How kojic acid gives skin lighten effect. What is laddering defect in lipstick and give reasons of laddering. Why cationic raw materials level should be kept below 3% and why they are incorporated at the end of compounding process in the earth based formulation. What are the reasons for erythema toxicum neonatorum in babies? Why water repellent binder is used in compact rouge? Explain the working of detergent in hard water.	08
Q.3	Write i) ii) iii)	e short notes on any two of the following. Write a note on Milia. Write a note on Eyebrow pencil. Write a note on binder used in compact rouge.	80
Q.4	Ansv i) ii) iii)	wer any Two of the following: Describe hydrocolloid based system of face pack and mask with their formula and preparation. Add a note on emollients in protective creams. Describe the liquid mascara and write down its manufacturing.	80
Q.5	Ansv i) ii)	wer any one of the following: Explain in detail ingredients of lipsticks. Elaborate the skin lightening agents used in skin lightener formulation.	80

Seat	Sat	D
No.	Set	

Five Year Integrated M. Tech. (Sem-VI) (New) (CBCS) Examination: Oct/Nov-2023

			COSMETIC TEC	HNO	LOGY
			Principles of Cosmecu	tics	– II (CT1603)
-			day, 09-01-2024 o 05:00 PM		Max. Marks: 40
Instr	uction	2) F 3) D	Il questions are compulsory. igures to the right indicate full m Draw neat labelled diagrams and Use of logarithmic table and calc	l give	equations whenever necessary.
Q.1	Multi		oice questions.		08
	1)	a) Ga	ample for colloidal system is as and liquid quid and gas	b) d)	Gas and solid Solid and gas
	2)	a) Ga	ons of protein and starch in wate as and water olid and water	b)	the examples of the colloidal type Liquid and water Water and solid
	3)	a) Pe	ity is expressed in ercentage ram/millimeter	b) d)	Millimeter Newton
	4)	a) Pa	er counter method does not give article volume article size	inform b) d)	mation regarding the Particle shape Both b and c
	5)	a) Pa	ite of sedimentation of particle is article size article color	q)	ctly proportional to Particle shape None of the above
	6)		asen apparatus consist of alance ydrometer	b) d)	Electrodes Pipette
	7)	particle a) Irr	fficult to express the size of part e having regular in shape oherical shape	icle in b) d)	a meaningful diameter for the Irregular surface Uniform in size
	8)	disadv a) Ag b) At c) La	g method is used for size distriby antage of this method isgglomerates can be identified strition of powder is possible arge number of sieves are requiredious and time consuming		analysis of powder. The

Q.2	Ans a) b) c) d) e) f)	wer the following (Any Four) What is micrometrics? Enlist the applications of it? What is compressibility index? Define Rheology. Give any two applications. Explain Bulges with examples. Explain the term colloid and mention its applications. Define and classify colloids.	80
Q.3	Writ a) b) c)	e short notes on (Any Two) Explain optical properties of colloids. Write down the application of the distribution phenomenon. Explain Plastic and dilatant flow of liquids.	80
Q.4	Ans a) b) c)	wer the following (Any Two) Enumerate methods to determine the particle size. Explain any two methods to determine the particle size. Define angle of repose. Explain the method to determine the same. Explain the principle of Ostwald's viscometer.	08
Q.5	Ans a) b)	wer the following (Any One) Define Newtonian flow of liquids. Explain the shear thinning system of liquids. List different types of densities of powder/granules. Write the experimental method for the determination of any one of them.	80

Seat		Sat	D
No.		Set	P

F	ive Y	ear	' Integrated (M. Tech.) (Sem -/Oct/Nov		New) (CBCS) Examination:	
			COSMETIC TEC	HNC		
			Beauty Culture -	- II (C	•	
			oursday, 11-01-2024 N To 05:00 PM		Max. Marks:	40
) All questions are compulsory.			
		2	2) Figures to the right indicate full r			
			B) Draw neat labelled diagrams and I) Use of logarithmic table and cald	_	•	
Q.1	Multi	iple	choice questions.			08
	1)		overactive sebaceous gland produ Excessive sweating	uces _ b)	 Especially foul smelling sweat	
		c)	Oily skin	d)	Dry skin	
	2)		at is used to give base to the mak			
		a) c)	Lip liner Foundation	b) d)	Mascara Primer	
	3)	,	cosmetology what is trained persor	,		
		a) c)	Barber Cosmetologist	b) d)	Dermatologist Hair Dresser	
	4)	,	iich product is used to set the foun	,		
	.,	a)	Loose powder	b)	Concealer	
	5 \	c)	Compact	d)	Shimmer Powder	
	5)		which part of the face is eyeshade Eyes	ow us b)	ed? Checks	
		,	Lips	ď)	Hands	
	6)		w can eye shadow palette be disin Sterilize		ქ? sanitize	
		a) c)	boil	b) d)	Disinfectant	
	7)		nich of the following is used to give		•	
		a) c)	Eyes shadow Artificial eye lashes	b) d)	Eye liner Eye glitters	
	8)	,	iich is face shape that has similar l	•		
	ŕ		ehead & jawline?	h)	Doctorgular	
		a) c)	Oval Square	b) d)	Rectangular Round	
Q.2	Ansv	ver 1	the following (Any Four)			08
	a)	Enli	st general hair problem.			
	,		ne code of ethics. ne the tools used for false eyelash	es.		
	•		st the different types of makeup.	-		

- e) Define contouring.f) Enlist the steps involved in hair massage.

			SLR-DF-48
Q.3	Wri a) b) c)	ite short notes on (Any Two) What are contraindications of application of false eyelashes? Write about natural & chemical dye. Discuss in detail about face shapes.	08
Q.4	Ans a) b) c)	swer the following (Any Two) Discuss the procedure for pedicure. Write in detail about code of ethics. What are different types of foundation & lipsticks?	08
Q.5	Ans a) b)	swer the following (Any One) Write procedure for bridal makeup. What are different haircare techniques? Discuss in detail.	08

Seat No.							Set	P
Five	Ye	ar Inte	egrated (N	Oct/No	v-202	_	ninatio	on:
			Pharn	COSMETIC TE		OLOGY on – II (CT1609)		
,	Day & Date: Friday, 29-12-2023 Max. Marks: 40 Time: 03:00 PM To 05:00 PM							
Instru	ıctic	•	•	is are compulsory. he right indicate ful	l mark	S.		
Q.1	Mul 1)	In allei a)	hoice ques rgic rhinitisis Sodium Chlo Chrompheni	s only availal oride	b)	ent for eye preparation. Oxymethazoline Sodium chromiglicate		80
	2)	Follow a) I		s EXCÉPT. e glycol	,	Patch test battery) contain Potassium dichromate Chinoform		
	3)	sickne a) \	-	<u>-</u> .	b) b) d)	eins responsible for serum Immune modulating agents All the above		
	4)	Sente Sente alumin a) (b) (c) S	nce A: The nce B: Then nce B: Then nce B: Then nce B: Then nce B: The nce B:	ice A is correct ice B is correct and Sentence B ar	silver o	coated tapes. e reactions in people allergic t	:O	
	5)	,	Slide aggluti		e the p b) d)	resence of agglutinating antib Tube agglutination Coombs test	odies.	
	6)	a) (Coombs rea		b)	aterial is injected with 21% NaCl solution Wood alcohol		
	7)	a) S	re control us SLS Dinitrofluoro	•	animal b) d)	stock is/are Castor oil Normal Saline solution		
	8)	Sente a)	_	have lowest avidity		blood group detection. tigen than IgG. True; True True; False		

Q.2	Answer the following (Any four)		
	a)	Draw neat labeled diagram of Antibody.	
	b)	What is complement and write down the purpose of complement Fixation test?	
	c)	What do you mean by Photo toxicity and Photo allergy.	
	d)	Write down precautions need to be taken during Patch Test.	
	e)	What is Morton's Neuroma?	
	f)	Write a note on Patches used in Patch Test.	
Q.3	a)	te short notes the following (Any Two) Different force involve in Antigen-Antibody interaction. Agglutination Inhibition Test. Dry Heel Fissure.	80
Q.4	Answer the following (Any Two)		
	a) b)	Atopic dermatitis: Explain in detail along with treatment. Elaborate Photopatch Test.	
	c)	Explain procedure for Human Repeat Insult Patch Test	
Q.5	Answer any one of the following		
	a) b)	Anaphylaxis: Describe in detail Comment on ELISA	80

Seat	Set	D
No.	Set	

Five Year Integrated (M. Tech.) (Semester - VI) (New/Old) (CBCS) Examination: Oct/Nov-2023 COSMETIC TECHNOLOGY Cosmetic Technology IV (CT3602)

		COSMETIC TE Cosmetic Technol	
		e: Sunday, 07-01-2024 00 PM To 06:00 PM	Max. Marks: 70
Insti	ructio	 ns: 1) All questions are compulsory. 2) Answer to all questions are to be 3) Figures to the right indicate full 4) Draw neat labeled diagram who 5) Use of logarithmic tables and computers. 	erever necessary.
Q.1	Sele 1)	ect most correct alternative for the formula are left over pieces of soap in a). Soap chips c) Medicated soaps	- -
	2)	Natural rubber latex masks on drying a) Continuous c) Water-impermeable	g form a film. b) Elastic d) All of the above
	3)	is characterized by pink disco a) Photophobia c) Polyneuritis	oloration on the hand and feet. b) Acrodynia d) None of the above
	4)	Barrier cream prevent incidences of a) Redness c) Dryness	b) Irritation d) All of the above
	5)	is also used to modify the base a) Titanium dioxide c) Lecithins	sic shade of the pigment in lipsticks. b) Propyl gallate d) Wool fat
	6)	adjust volume of pigment in li a) Magnesium carbonate c) Both a and b	quid eyeliners. b) Magnesium aluminium silicate d) Diethylene glycol monostearate
	7)	can be added to avoid settling mascara. a) Polyvinyl acetate c) Carbon black	g of pigments in lotion type of cream b) Bentonite d) None of the above
	8)	Isopropyl myristate act as in r a) Emulsifying agent c) Liquid binder	rouge preparation. b) Emollient d) Absorbent
	9)	based products are known as a) Vinyl c) Clay	s peelable face mask. b) Wax d) Hydrocolloid

	10)	At higher concentration, results in epidermolysis.	
		a) Kojic acid b) Ascorbic acid	
		c) Titanium dioxide d) Glycolic acid	
	11)	· · · · · · · · · · · · · · · · · · ·	
		a) Rashes b) Burns	
		c) Abrasive skin treatment d) All of the above	
	12)	Barrier creams are formulated to provide film barrier to the skin.	
		a) Invisible b) Uniform	
		c) Protective d) All of the above	
	13)	detergents are produced by reacting polyethene glycol with stearic acid.	
		a) Anionic b) Cationic	
		c) Both a and b d) Non-ionic	
	14)	Lipstick base is made by mixing	
		a) Oils b) Waxes	
		c) Both a and b d) None of the above	
Q.2	A)	Answer the following. (Any Four)	80
		How the Kojic acid act as skin lightening agent?	
		2) Enlist the steps involving in the manufacturing of dry rouge.	
		What criteria should be considered during development of baby products?Write down the quality characteristics of mascara.	
		4) Write down the quality characteristics of mascara.5) Why face packs and masks are needed and how they are applied?	
	Β\		^^
	B)	• • • • • • • • • • • • • • • • • • • •	06
		 Write a note on Hydroquinone as a whitening agent. Write note on Vinyl based formulation (system) for face packs and masks. 	
		3) Write a note on baby powders.	
•	•	,	^^
Q.3	A)	3 ()	80
		 Write down the preparation of hydrocolloid Mask. Write down the manufacturing of: 	
		i) Cream eyeshadow	
		ii) Stick eyeshadow	
		3) Enlist the eye makeup formulations and write down the different shades	
		produced by using different pigments.	
	B)	Answer the following. (Any one)	06
		1) Enlist the barrier preparation and add note on protective agents used in	
		barrier preparations.	
		2) Define lipstick and comment on waxes used in lipsticks formulation.	
Q.4	A)	Answer the following. (Any two)	10
		1) Give an account on raw materials used for eye makeup preparations.	
		2) Write down the components used in skin lightening creams with their	
		amount and examples.	
		3) Write down the characteristics of eyeliners.	
	B)		04
		 Add a note on baby lotion. Write down the ingredients used in making face masks and face packs. 	
Q.5			14
	a)	Describe the liquid components used in lipsticks formulation.	
	p)	Explain argillaceous earth based formulation (system) for face packs and masks.	•
	c)	Explain the cream rouge.	

Seat	Sat	D
No.	Set	L

Five Year Integrated (M. Tech.) (Semester -VI) (New/Old) (CBCS) Examination: Oct/Nov-2023 COSMETIC TECHNOLOGY Principles of Cosmecutics – II (CT3603)

			Principles of Cosmecu	utics	5 – II (CT3603)	
			esday, 09-01-2024 I To 06:00 PM		I	Max. Marks: 70
Instru	uction	2 3 4 5) All questions are compulsory.) Answer to all questions are to be) All questions carry equal marks.) Figures to the right indicate full n) Draw neat labeled diagram wher) Use of calculator and log table is	narks ever	necessary.	only.
Q.1		-	choice questions.			14
	1)		stic flow is exhibited by Paste Colloids	b) d)	Jellies Lotion	
	2)	_	is an example of which type of co Gas in liquid Gas in gas		l system? Solid in gas Liquid in gas	
	3)	a) b) c)	cition coefficient (p) = conc. of Drug conc, of Drug in oil conc, of Drug in aqueous phase cone, of Drug in Chloroform phas All of the above		rg. phase/	
	4)	a)	science of deformation and flow of Welding Tapping	f mat b) d)	ter is called Bending Rheology	
	5)	a)	non-Newtonian fluids, apparent vis Shear rate viscous rate	scosit b) d)		
	6)	Whi a) c)	ch of the following form of colloid i Gel Solid sol	s con b) d)	sidered to be the strong Foam Liquid sol	est colloid?
	7)	Siev a) c)	ring method uses a series of stand National Bureau of standards Both a and b	ard s b) d)	ieves calibrated by the _I IUPAC None of the above	.
	8)		ch among the following is not the e Yogurt Mayonnaise	exam b) d)	ple of thixotropic fluid? Ice cream Milk	
	9)		ecular dispersion ranges from 1 to 500nm	<u>b</u>)	< 1nm	

d)

None of these

c) < 500nm

	10)	Methods for determining shape of particle are a) Absorption method b) Adsorption method c) Air permeability method d) Microscopy						
	11)	The position occupied by non-polar hydrophobic and polar hydrophilic group in a micelle is a) Non-polar towards the outside and polar towards inside b) Polar towards the outside and non-polar towards inside c) Both present only at the surface d) Both distributed throughout						
	12)	Thixotropy is system. a) Shear thinning b) Shear thickening c) Both a and b d) None of the above						
	13)	As a result of Tyndall effect are formed. a) Dark spots b) Bright spots c) Both a and b d) None of these						
	14)	Unit of viscosity is a) Centipoise b) Dimesionless c) Dyne. s/m² d) Poise						
Q.2	a)	Answer the following. (Any Four) i) Define term rheopexy. ii) State the partition law. iii) Draw net labelled diagram for Andreasen pipette. iv) Write down characteristics disperse phase. v) Define plastic flow. Draw rheogram for plastic system.						
	b)	 Write a note on. (Any Two) i) Dilatants flow of liquid. ii) Bulges and spurs. iii) Determination of partition coefficient. 	06					
Q.3	a)	 Answer the following. (Any Two) i) Discuss in detail purification of colloid. ii) Discuss in detail construction, working of Andresen pipette to determine particle size with the help of diagram. iii) Define thixotropy. Explain thixotrophic behaviour of liquids with mechanism. 						
	b)	 Answer the following. (Any One) Enlist the properties of colloid. Describe optical properties and explain its use in molecular weight determination of polymer What is particle size distribution? Discuss in detail methods for determination of particle size distribution of powder 						
Q.4	a)	 Answer the following. (Any Two) i) Define density, classify then and how they are determined. ii) Define distribution phenomena. Discuss in detail their applications. iii) Define antithixotropy. Differentiate between thixotrophic and antithixotrophic system. Explain antithixotrophic behaviour of liquids with mechanism. 	10					

b) Answer the following. (Any One)

04

- i) Distinguish between colloid, solution and suspension.
- ii) Enlist properties of colloid. Discuss in detail molecular weight determination of polymer from optical properties.

Q.5 Answer the following. (Any two)

14

- a) Classify the liquids according to flow behaviour. Discuss in detail non-Newtonian flow with suitable examples.
- b) Define colloid and classify them. Discuss in detail preparation methods of colloids.
- **c)** Enlist properties of powder. Add a note on derived properties. Explain in detail determination of flow of powder.

Seat No.						Set	Р

Five Years Integrated (M. Tech.) (Semester - VI) (New/Old) (CBCS)

		Examination: Oct/Nov-2023 COSMETIC TECHNOLOGY
		Pharmacology and Interaction – II (CT3610)
-		e: Friday,29-12-2023 Max. Marks:70
Instr	uctior	ns: 1) All questions are compulsory. 2) Figures to the right indicate full marks.
Q.1	Mult i 1)	The intermolecular force which operate between antigen and antibody is/ are a) Electrostatic forces b) Hydrogen bonding c) Hydrophobic bonding d) All the above
	2)	In allergic rhinitis is only available agent for eye preparation. a) Sodium Chloride b) Oxymethazoline c) Chromphenicol d) Sodium chromiglicate
	3)	Find the correct sequence of Ag-Ab reaction. Sr. No. Stages 1) Formation of visible events like precipitation, agglutination. 2) Leads to destruction of Ag or its neutralization. 3) Involves formation of Ag-Ab complex.
		 a) First stage- Sr. no.2; Second Stage-Sr. no. 1; Third stage-Sr.no.3 b) First stage- Sr. no.3; Second Stage-Sr. no.1; Thirdstage-Sr.no.2 c) First stage- Sr. no.1; Second Stage-Sr. no.2; Thirdstage-Sr.no.3 d) None of above
	4)	Two heavy chains of each antibody entity are connected covalently by a) disulfide bonds b) Hydrophobic force c) Hydrogen Bond d) Peptide linkage
	5)	First step pain is associated with a) Plantar fasciitis b) Morton's Neuroma c) Hallux valgus d) None of above
	6)	Identify the correct statement related to patch, which is used in patch test. Sentence A: The finn chambers are made up of aluminum. Sentence B: There is a risk of false positive reactions in people allergic to aluminum a) Only Sentence A is correct b) Only Sentence B is correct c) Sentence A and Sentence B are correct d) None of above.
	7)	Following are the vehicles used for the test substance in patch test except. a) Chloroform b) Alcohol c) Water d) Olive oil

8)	BIS standards are applicable for following Indian preparations except. a) Cosmetic Pencils b) Face pack c) Hair Oils d) Antiseptic liquids						
9)	In patch testing, "standard series" of haptens applied in every patient. The term "standard series" refers to a) Serial dilutions of irritant chemical b) Lowest concentration of irritant chemical c) Collections of substances that are the most frequent sensitizers.						
10)	 d) None of above is also referred as Gold standard test for ACD. a) Photosensitive test b) Cross sensitization test c) Mucus membrane irritancy test d) Patch Test 						
11)	Identify the reason for false positive reaction in Patch Testing. a) Impure substance b) Adhesive tape reaction c) Excessive concentration d) All the above						
12)	Positive control used in cumulative irritation test is a) 3 % Sodium Chloride solution. b) 3 % Urea Solution c) 3 % Salicylic acid Solution d) 3% Sodium Lauryl Sulphate solution						
13)	Following tests are carried out in animals for safety study of cosmetics except. a) Oral toxicity limit test b) Skin Irritation Test c) Photosensitivity Test d) Eye irritancy Test						
14)	Volatile irritants are tested using a) Antigen Cup b) Van-Der bends c) Finn chamber d) None of above						
A)	 Answer the following (Any Four) 1) Define immunogenicity and Adjuvant. 2) What is anaphylaxis and write down its types. 3) Explain why most of Photo toxicity and Photo allergy caused by UVA radiation rather than UVB radiation. 4) Write a short note on BIS. 5) Write down precautions need to be taken during Patch Testing. 	08					
B)	Write notes on (Any Two)1) What is Morton's neuroma? Explain non-surgical treatment for Morton's neuroma.	06					
	2) Differentiate Common cold and Allergic Rhinitis.3) Explain principle behind compliment fixation test.						
A)	 Answer the following (Any two) 1) Write down principle of Patch Test, Vehicle used for Test/Allergens, Reasons for false positive and false negative patch test. 2) What is Morning Stiffness? Write about possible cause and treatment / Life style modification for planter facilitis. 3) Explain Phototoxicity and Photo allergy along with mechanism of 	Answer the following (Any two) 1) Write down principle of Patch Test, Vehicle used for Test/Allergens, Reasons for false positive and false negative patch test. 2) What is Morning Stiffness? Write about possible cause and treatment / Life style modification for planter facilitis.					

Q.2

Q.3

cause.

	B)	Answer the following. (Any One)1) Explain Coombs Test2) Atopic dermatitis: Explain in detail along with treatment.	06			
Q.4	 A) Answer the following. (Any Two) 1) Write a note on early type of home pregnancy test kit /agglutina inhibition. 2) Write in detail about Skin Irritation Test. 3) Summaries different antibody present in Human. 					
	B)	Answer the following. (Any One) 1) Write a note on Immunofluroscence. 2) Explain Slide agglutination reaction.	04			
Q.5	 Answer the following. (Any Two) a) What is Allergy? Explain in Detail about Allergic rhinitis. b) Explain in detail Human Repeat Insult Patch Test HRIPT. c) Explain photosensitive eczema. 					

Seat	Set	D
No.	Set	

Five Years Integrated M. Tech (Semester - VII) (New) (CBCS) Examination: Oct/Nov-2023

			COSMETIC TE Perfumes 8	CHN	OLOGY	
			londay,18-12-2023 M To 01:00 PM			ax. Marks:40
Instr	uctior	ıs:	 All questions are compulsory. Draw neat labelled diagrams (3) Figures to the right indicate full. Use of logarithmic table & calc. 	ll marl	(S.	ssary.
Q.1	Mult 1)	W a)	choice questions. hich of the following is inorganic t Calcium chloride Glycerol		humectant? Sodium lactate Ethylene glycol	08
	2)	tim a)	hich of the following factor is resp ne & effort in production? Psychological factors Chemical factors	b)	e for soap perfuming to re Technical factors All of the above	duce
	3)	a)	ne hardness of cologne stick is de Sodium Lauryl sulphate Palmitic acid	b)	ed by the quantity of Stearic acid Sodium stearate	_•
	4)	a)	hich of the following herb comes of Orris Muguet	under b) d)	· •	
	5)	a)	ne higher content yield mor Stearic acid Propylene glycol		Palmitic acid	
	6)		hich of the following agents are us oducts? Colours Preservatives	sed to b) d)	prevent spoilage in cosmon Flavours Humectants	etic
	7)	a)	ne linalool is the active ingredients Lavender Violet	of the b) d)	e following herbs. Rose Orris	
	8)	us	hich of the following groups of org ed in making perfumes? Alcoholic Esters	ganic o b) d)	compounds are least likely Carboxylic acids Aldehydes	to be

Q.2	a) b) c) d) e)	Define emulsified perfumes with examples. Write the biological source and chemical composition of mudguet. Give examples of perfumes incorporated in shampoo. What are the factors affecting adaptation of perfumes in soap formulations? Define toilet waters. What is cologne?	08
Q.3	Ans a) b) c)	wer the following. (Any Two) Write a short note on solubilized fragrances with any one formulation. Give details of perfuming skin creams & lotions. Write a biological source, properties and chemical composition of cassie and narcissus.	08
Q.4	Ans a) b) c)	wer the following. (Any Two) What is adaptation of perfumes in nail polishes? Write a short note on mineral water essences. Write a Source, properties and composition of orris and jasmine.	80
Q.5	Ans a) b)	wer the following. (Any One) Explain the methods to formulate perfume from acacia, Amber, lilac. Write their source, properties and chemical composition. Give detailed account on incorporation of perfumes/ colours/ flavours in lipsticks & other lip preparations.	08

No.					Set	P
Five	Yea	r Integrated N	l. Tech. (Semeste Oct/Nov-2		ll) (New) (CBCS) Examinati	on:
			COSMETIC TEC	HNC		
		: Tuesday, 19-12 AM To 01:00 P	2-2023	1010	Max. Mark	s: 40
Instru	ıction	2) Figures to3) Draw neat	ns are compulsory. the right indicate full n labelled diagrams & g arithmic table & calcula	iven	equations wherever necessary.	
	Multi 1)	a) Deep condib) Improving thc) Protection a	nishing rinse are usef			08
	2)	Indigo is obtaine a) Banana c) Mango	ed from	b) d)	Neem Peach	
	3)	One of the impo a) Tying with r c) Pulling	rtant techniques to maibbon	ake p b) d)		
	4)	The main active a) Hydrogen p c) Sodium hyd	eroxide		nt in alkaline perm is Ammonium thioglycolate Ammonium bromide	
	5)	What type of ing effect? a) Silicone c) Vitamin E	redient is added to sh	b) d)	Oos to provide a color-protecting UV filters Essential oils	
	6)	· • · · · ·	<u></u> .	b) d)	d hair to refresh the colour is Alkaline perm Rebound	
	7)	The cuticle of ha a) Protective of c) Long strand		/er & b) d)	it is made up of: Overlapping scales Melanin scales	
	8)	Surfactant mole a) Lifting off oic) Separating	ls, dirt into the water	b) d)	Raising the pH of hair Deionizing Water	

		אר-DL	50
Q.2	Ans a) b) c) d) e) f)	wer any four of the following: Define hair dyes & enlist types of hair dyes. What is aerosol shampoo? What are glossers in hair conditioners? Define cold waving & hot waving. Write about quality control of conditioners. Give a formula for solid brilliantine.	30
Q.3	Write a) b) c)	te short notes on any two of the following. Vegetable hair dyes Hair straighteners Classification of shampoos	08
Q.4	Ans a) b) c)	wer any Two of the following: Write a note on hair thickeners. Write about health hazards associated with para-dyes and their testing. Write in detail formulation of medicated hair tonic.	08
Q.5	Ans a) b)	wer any one of the following: Discuss factors influencing colour fading & removal of colour from hairs. Discuss formulation, preparation methods & quality control tests for shampoos.	08

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Seat No.					Set	P
Five	Year	_	I. Tech. (Semeste Oct/Nov-2 COSMETIC TEC Quality Assurance	2023 HNC	DLOGY	n:
•		Wednesday, 20 AM To 01:00 Pl			Max. Marks	: 40
Instru	ıctions		ns are compulsory. the right indicate full r	narks	S.	
Q.1	1) _	le choice ques is suppor PQ OQ	stions. ting document for the	b)	paration of DQ. IQ URS	08
	o a	n Gel filtration to the componer (a) Molecular so (b) Solubility	nts.		Polarity Physical constants	
	a	is recogesting.) D65 Both a and		b)	ID65 None of the above	
	·	The foaming por a) 150 c) 200	wer in ml for tooth pas	ste is b) d)	min as per BIS. 50 None of the above	
		is concer Quality Ass Production	ned with testing and s urance	b)	fication. Quality Control Packing	
	ir a	•		b) d)	otion of electromagnetic radiation UV Microwave	
	8	is recommodule in recommodule is rec	pelling. I testing	b)	for the retest period or shelf life Long term testing None of the above	
	, a	otal fatty substa as per E a) 5 b) 10		crear b) d)	m in percent by mass is min. 20 2	

Q.2	Ans	wer any four of the following.	80
	a)	Why three consecutive batches are taken for process validation? Why not two and four batches?	
	b)	What is the role of radiofrequency transmitter in NMR spectrometer?	
	c)	Write down the storage conditions that should be prominently indicated on the label after completion of stability.	
	d)	Write down the procedure for spectrophotometric evaluation of sunscreen preparation.	
	e)	Define validation as per USFDA and WHO.	
	f)	Give the application of IR spectroscopy.	
Q.3	a)	e short notes on any two of the following. Write a short note on Change control.	80
	p)	Write a short note on Mass spectroscopy.	
	c)	Write a short note on test for heavy metals of face wash as per BIS.	
Q.4	Ans	wer any Two of the following.	80
	a)	Explain bracketing and matrixing design for stability testing of products with suitable example.	
	b)	Explain different sample injection methods used in Gas chromatography.	
	c)	Describe the evaluation parameter of lipsticks.	
Q.5		wer any one of the following.	80
	a) b)	Explain in detail the procedure for addressing of deviation. What are the test conditions and frequency of testing as per WHO for stability testing of product.	

Seat No.	et	P
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Five Years Integrated (M. Tech) (Semester - VII) (New) (CBCS)

	Examination: Oct/Nov-2023 (COSMETIC TECHNOLOGY) Herbal Cosmetics-I (CT1704)							
-			ursday, 21-12-2023 1 To 01:00 PM	•	, Max. Marks:40			
Instr	uctio	3	1) All questions are compulsory. 2) Draw neat labelled diagrams an 3) Figures to the right indicate full r 4) Use of a logarithmic table and ca	narks	· ·			
Q.1		-	choice questions.		08			
	1)	-	our kachari belongs to the family. Liliaceae Zingiberaceae	b) d)	Umbeliferaceae Lamiaceae			
	2)		ccia Concinna linn is the botanica Henna Reetha	l nam b) d)				
	3)	a)	to protective property of Cucumbe Mycosporine like amino acid Fucoidan		lue to the Tripertene Glycoside All			
	4)	a) c)	is also called wound hormone. Aloe Vera Babul	b) d)	Neem Henna			
	5)	a)	P means Good Manufacturing Procedure Good Manufacturing Personal	b) d)	Good Manufacturing Practices None			
	6)	"Ku a) c)	mari" is a common name for Aloe Senna pod	 b) d)	Rhubarb None			
	7)	a)	c liquid is also known as Green solvent Yellow solvent	b) d)	Red solvent Ideal solvent			
	8)	Ger a) c)	ntle heat applied during the macera Decoction Distillation	ation b) d)	extraction is known as Maceration Digestion			
Q.2	1) 2) 3) 4)	Defin Defin Write Defin i) A	the following (Any Four) the and classify extraction technique the herbal cosmetics and write its a the a cosmetic use of ambahaldi. the the same was a cosmetic use of ambahaldi.		ages.			

5) Enlist the different methods of sterilization of raw herbs.

6) Write down the steps involved in proper storage of raw herbs.

Q.3	 Answer the following. (Any Two) Write a short note on the importance of size reduction in extraction. Write a short note on Role of herbal ingredients in hair care. Explain Critical solution temperature and mention their applications. 	08
Q.4	 Answer the following. (Any Two) 1) What are the details required on the label of raw herb? 2) Write a method of extraction of tannins. 3) Write biological source, geographical source and uses of Shikkekai. 	08
Q.5	 Answer the following. (Any One) 1) Write pharmacognostic scheme of Nagarmotha. 2) Write the biological source, chemical constituent and uses of i) Chandan ii) Neem 	08

Seat No. Set P

Five Years Integrated M. Tech. (Semester - VII) (New) (CBCS)

	1 1	Examination: (Oct/N	lov-2023
		COSMETIC TE Material Management & Inv		
_		e: Friday,22-12-2023 0 AM To 01:00 PM		Max. Marks:40
Instr	uctior	1) All questions are compulsory.2) Figures to the right indicate fu3) Draw neat labelled diagrams at 4) Use of logarithmic table and computers.	and g	ive equations whenever necessary.
Q.1	Multi 1)	iple choice questions. Safety stock + EOQ = a) Average inventory b) Normal maximum inventory c) Absolute maximum inventory d) Minimum inventory to run the b	usine	08 ss
	2)	Identify the different word from give Nail Paint, Wax, SLS, Ethanol a) Nail Paint c) SLS	n gro b) d)	up below. Wax Ethanol
	3)	In FIFO method, during high fluctual between batches become a) Predictable c) Valuable	ting o b) d)	
	4)	Identify the factor considered while a) Market condition c) Usage rate		lating the standard cost method. Loss on storage All the above
	5)	For proprietary items systema) Blanket order c) Single tender	m is ເ b) d)	ised. Rate contract Open tender
	6)	Trade discount is from purch in the invoice. a) deducted c) excluded	ase p b) d)	added credited in buyers account
	7)	Following are the elements of JIT, ea) Simplification b) Product oriented layout c) Attacking fundamental problem d) Eliminating waste	·	t.
	8)	uses brainstorming session ta) Time series forecastingc) Subjective approach	o ger b) d)	nerate ideas and solve the problem. Delphi Technique Scenario writing

Q.2	a) b) c) d) e)	wer any four of the following. What is Material management, elaborate its scope. Enlist MRP inputs. What do you mean by i) Purchase Order ii) Blanket Order Give format for Material Received Note. Explain holding cost.	08
	f)	What is simple average price method?	
Q.3	Wri a) b) c)	ite short note on any two of the following. Factors considered while selecting supplier and state material inspection methods. Enlist modem techniques of Inventory control. Explain reorder point. LIFO	08
Q.4	a)	Swer any two of the following. Define and give objectives of Inventory control. Write in short about two bin system. What is indent? Explain Tender system. What do you mean by '3S' activity? Define material planning along with factors effecting on it.	08
Q.5	Ans a) b)	swer any one of the following. Explain purchase cycle in detail. i) What is HML classification? ii) How will you determine EOQ in Industry?	08 02 06

Seat	Sat	D
No.	Set	

Five Years Integrated M. Tech (Semester - VII) (Old) (CBCS)

			Examination: Oc COSMETIC TEC Perfumes & Color	HN	OLOGY
			nday,18-12-2023 To 02:00 PM		Max. Marks:70
Instr	uction) All questions are compulsory. 2) Figures to the right indicate full	marl	KS.
Q.1	Multi 1)	Wha	choice questions. at is the proportion of perfume for 0.2 % 2.0 %	b)	14 y powder? 6% 3.0%
	2)	a)	er drying the nail lacquer, film form Odorless Objectionable odor	b)	on nails is Acetone like smell None of the above
	3)	cos a)	reaction between flavouring cher metics releases the Strong odor Sulphuros odor		s and thioglycolate in hair Objectionable odor None the above
	4)	a)	mpoos should have some Flowery odor Pleasant odor	b) d)	Strong odor All of the above
	5)	a)	at are the medicinal uses of Kewd diabetes joint pain		noo? fever All of the above
	6)	a)	at is the family of Narcissus flower Amaryllidaceae Violaceae	-? b) d)	Oleaceae Rosaceae
	7)	Sou a) c)	irces of Acacia are- India South China	b) d)	USA Both A & C
	8)	Why a) b) c) d)	y spent flowers are discarded in m Bad smell low concentration of essential oil High concentration of essential of None of the above		ng of perfumes from Lilac flowers?
	9)	Lily a) c)	of the valley flower is also called a Muguet Acacia	as - b) d)	Lilac Narcissus
	10)	Orri	s essential oil is extracted from th	,	Stems Twigs

	11)	Vio	let flowers essential oil contains _		_•	
		,	Vitamin B1	,	Vitamin C	
		c)	Vitamin D	d)	None of the Above	
	12)		must leave behind an attractive			
		,	Shampoo	,	Conditioner	
		c)	Lotion	d)		
	13)		sic condition is for Hair perf		- · · · ·	
		,	Suitable	,	Unsuitable None of the above	
		C)	Good	d)		
	14)	<u></u>	procedures can be used to ma		-	
		a) c)	Regular Diminished — solvent	,	Split- process All of the above	
		O)	Diffinished Solvent	u)	7 th of the above	
Q.2	a)	Ansv	ver the following (Any Four)			80
		1)	Why is there alcohol in perfumes?			
		2)	What are the properties of Jasmir	ie?		
		3) 4)	Define Solid perfumes. What are the herbal actions of Vio	olot f	lowers?	
		5)	Define Adaption and Incorporation		iowers:	
	b)	•	e Notes (Any Two)			06
	D)	1)	Define Solubilizer and its industria	al ap	plications.	00
		2)	Explain in detail about perfumed			
		3)	What are the geographical source	es &	chemical composition of Narcissu	s?
O 2	۵)	Anos	war the following (Any Two)			08
Q.3	a)	1)	ver the following. (Any Two) Write a note about the preparation	n of	the alcoholic fragrance solution	UO
		•,	through the 'Diminished- solvent-		<u> </u>	
		2)	How to extract essential oil from (
		3)	What are the factors that influence	e so	ap perfuming?	
	b)		wer the following. (Any One)			06
			What are the chemical componen			
		2)	What are the ideal properties of C	lear	nsing Cream?	
Q.4	a)	Ansv	wer the following. (Any Two)			10
		1)	Explain the extraction process of		da rooh through flow chart	
		2)	Write in detail about Jasmine flow			
		3)	Define and classify an alcoholic p their processes.	enu	me solution and elaborate on	
	h\	Ano	·			0.4
	b)	Ans\ 1)	ver the following. (Any One) Write a note on perfuming Lipsticl	c an	d Nail lacquer	04
		2)	Explain the preparation of hair pe	rfum	es.	
~ -	A	,				4.4
Q.5	Ans 1)		t he following. (Any Two) e a note on			14
	''	i)	Lilac			
		ii)	Acacia			
	2)	,	t are the important uses of			
	-,	i)	Rose			
		ii)	Violet			
		iii)	Lavender			
	3)	Defir	e and classify perfumed products	and	explain the solid perfumes.	

Seat	Sat	D
No.	Set	

Five Years Integrated M. Tech (Semester - VII) (Old) (CBCS) Examination: Oct/Nov-2023

			COSMETIC TE Cosmetic Techno	CHI	NOLOGY	
			esday, 19-12-2023 To 02:00 PM			Max. Marks: 70
Instr	uction	2 3 4) All questions are compulsory) All questions carry equal ma) Figures to the right indicates) Draw neat labelled diagram) Use of Calculator & log table	rks. full n where	ever necessary.	
Q.1	Multi 1)	Foll a) b) c)	choice questions. owing is the benefit of henna, Balances pH & oil production It acts as a moisturizers Can help to prevent dandruff Help to remove split ends	exce	pt:	14
	2)	crea a)	atralization rebuilds the ated by waving lotion. Salt bonds Polypeptide chains	b)	moving extra hydrogen Disulfide bonds All of the above	bonds
	3)	a)	basic perm wrap is also calle Strait set Weave technique	b)	Bricklay perm None of the above	
	4)	a)	degree to which hair absorbs Porosity Length	wavi b) d)	_	
	5)	a)	yl alcohol is used as in viscofier clarifier		npoos. sequesterant opacifier	
	6)	Foll a) c)	owing are the surfactants use Sulphosuccinates PEG 80 & sorbitan nitrate	d in b b) d)	•	ne
	7)		rinses are classified as: Permanent hair colours Hair straighteners	b) d)	Semipermanent hair d Hair waving preparation	•
	8)	recu	length of time required for ha url is called: Processing time Development time	ir stra b) d)	nnds to absorb the wavi Rinsing time None of the above	ng lotion &
	9)		c pyrithine in shampoo is used	as:	Cleanser	

d) Detergents

c) Antidandruff

	10)	The purpose of conditioning agent in shampoo is: a) to cause brittleness to hair b) to provide moisture to hair c) to bring moisture to skin d) to cause greasiness	
	11)	% of perfume is incorporated into shampoos. a) 2-3% b) 0.3-1 % c) 10-20 % d) 4-5 %	
	12)	Rinse- through finishing rinses are useful for: a) Deep conditioning b) Improving quality of new hair c) Protection against breakage d) Detangling hair after washing	
	13)	The cuticle of hair is outermost layer, made up of: a) Protective oils b) Overlapping scales c) Long strands d) Melanin scales	
	14)	Instant conditioners having pH range of 3.5 to 6 are used to: a) Restore pH balance b) Remove oil accumulation c) Add a slight amount d) Improve scalp condition	
Q.2	A)	 Answer the following. (Any Four) 1) Define cold waving & hot waving. 2) Define & enlist types of hair dye. 3) What is hair fixative gel? 4) What is mousse preparation? 5) Give ideal properties of shampoo. 6) Give a formula for hair tonic. 	08
	B)	 Write notes on the following. (Any Two) 1) Bleaching of hair 2) Evaluation of hair setting preparations 3) Process of hair coloring 	06
Q.3	A)	 Answer the following. (Any Two) 1) Write a note on non-pressurized styling products. 2) Write about brilliantines & mouse preparations. 3) Discuss hair thickeners. 	80
	B)	Answer the following. (Any One)1) Discuss about materials used in hair tonics.2) Write about hair rinses.	06
Q.4	A)	 Answer the following. (Any Two) 1) Write a note on vegetable dyes. 2) Discuss factors affecting colour fading. 3) Write about principle and auxiliary surfactants in shampoo. 	10
	B)	 Answer the following. (Any One) 1) Discuss off-scalp techniques of hair dyeing. 2) Write evaluation of hair conditioners. 	04
Q.5	Ans	wer the following. (Any Two)	14
	a)	Write about hair waving methods and their evaluation.	=
	b)	Write in detail about ideal properties, classification & quality control of shampoos.	
	c)	Discuss about hair styling products.	

Seat	Set	D
No.	Set	

Five Year Integrated M. Tech. (Semester- VII) (Old) (CBCS) Examination:

	0 . 0	Oct/Nov-2023	DOG, Examination:
		COSMETIC TECHNOLOGY	
		Quality Assurance Techniques (CT370	13)
		nte: Wednesday, 20-12-2023 00 AM To 02:00 PM	Max. Marks: 70
Instr	uctio	ons: 1) All questions are compulsory. 2) Figures to the right indicate full marks.	
Q.1	Cho	oose the correct alternative from the following options. Perform after the production process.	14
	-,	a) Quality Control b) Quality Plann c) Quality Assurance d) None of the a	•
	2)	Mostly the columns used in HPLC are made up of a) Plastic b) Iron c) Steel d) Silica	
	3)	is determined by using wool-yarn and grease in th	e evaluation of
		shampoos. a) Penetrability b) Detergency acc) Foaming ability d) Thermal stabil	
	4)	Stability testing is done a) To determine shelf life of product. b) To determine the components used for packing. c) To get information at preformulation stage. d) All of the above	
	5)	includes the functional and technical specification and equipment. a) SAT b) URS c) PQ d) FAT	for the machine
	6)	In NMR spectroscopy, the spin of nucleus generates a) Magnetic b) Electric c) Electromagnetic d) None of the above	field. pove
	7)	As per BIS the pH of the skin cream based on beeswax a between a) 3.0 - 30.0	and borax shall be
	8)	methods used for stability study should be validate a) Analytical b) Statistical c) Biological d) None of the above	
	9)	Based on situation, there are categories of the deal categorie	eviation.
	10)	Nephelometery is used to measure the of light. a) Absorption b) Scattering c) Reflection d) Transmission	

	11)	The temperature at which the lipsticks started oozing out oil is known as	_ ·
		a) Yield pointb) Breaking pointc) Wetting timed) Softening point	
	12)	is characterized by cold winters with high RH and less warm summers with high RH.	
		a) Zone II b) Zone IV c) Zone I d) Zone III	
	13)	is an original copy. a) Controlled copy b) Master copy c) Obsolete copy d) Superseded copy	
	14)	In HPTLC the location of colourless compound can be located by using	
		reagent, a) KMnO ₄ b) K ₂ Cr ₂ O ₇ c) Oxalic acid d) MnO ₋₄	
Q.2	A)	 Answer the following. (Any Four) What is the difference between Validation and Qualification? Write down the principle of mass spectroscopy. Mention the guideline for the stability testing of new drug substance and products as per ICH and how many batches are selected for stability testing as per ICH. Write down the procedure for determination of pH of skin cream. Define the following: GMP Shelf life 	80
	B)	 Write Notes on (Any Two) 1) Write a note on DQ. 2) Write a note on repeated insult test. 3) Write a note on BMR. 	06
Q.3	A)	 Answer the following (Any Two) Write down the difference between QA and QC. Write down the theory behind Turbidimetry and nephelometry along with its application. Write down the number of batches along with its frequency to be selected for the sampling of sample from batches as per WHO guideline of stability testing for registration and for ongoing studies. 	80
	B)	Answer the following (Any One) 1) Describe the evaluation parameters of lipsticks. 2) Explain in detail instrumentation of IR.	06
Q.4	A)	 Answer the Following (Any Two) 1) Explain in detail validation. 2) Write down the principle behind NMR and give its applications. 3) Write down the procedure for determination of heavy metals as per BIS for Skin cream. 	10
	B)	 Answer the following (Any One) 1) What are the conditions to be satisfied for establishment of tentative shelf life of 24 months? 2) Add a note on deviation. 	04

Q.5 Answer the following. (Any Two)

14

- a) Explain the evaluation parameters of tooth paste.
- b) Explain in detail instrumentation of gas chromatography and give its applications.
- write down in detail about the guideline to be followed for the stability testing of finished product under different storage conditions as per WHO.

Seat No. Set	P
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Five Year Integrated (M. Tech.) (Semester - VII) (Old) (CBCS) Examination: Oct/Nov-2023

		COSMETIC TE Herbal Cosmetic	CHN	OLOGY
		e: Thursday, 21-12-2023 0 AM To 02:00 PM	,5 – 1	Max. Marks: 70
Insti	ructio	ns: 1) All questions are compulsory. 2) Figures to the right indicate full	mark	S.
Q.1	Mult 1)	iple choice questions. Aloe vera is also known as a) korphad c) desert lily	b) d)	kumari all of these
	2)	Borax in formulation of cold cream is a) none c) emulsifier	s used b) d)	d as both c & d preservative
	3)	Toners in skin care are used to a) tighten skin c) make skin soft	 b) d)	remove dust all of these
	4)	Which of the following are primary material a) Chlorophyll c) Lipids	netabo b) d)	olites present in a plant / herb? Sugars All of these
	5)	In which extraction method, the herb than 2 hours? a) Infusion c) percolation	b is bo b) d)	iled in the menstruum for more Maceration none of these
	6)	The residue remaining after extraction a) marc c) solute	on is k b) d)	known as menstruum percolate
	7)	Anti-wrinkles are the agents used to a) improve skin glow c) prevent & tighten the skin		 moisturize skin both a & b
	8)	method helps to increase the a) size reduction c) distillation	surfa b) d)	ce area for better and faster extraction. fractionation drying
	9)	Drying & grinding of the herbal drug a) decrease extraction efficiency c) increase extraction efficiency	b)	
	10)	The herbal drugs like flowers, anthe a) metal containers b) woven sacks with LD liner c) plastic containers d) corrugated boxes with polypropy	·	

	11)	The synonym of Mango ginger is a) Haldi b) Chandan c) Ambahaldi d) Elaichi	
	12)	Pressurised liquid extraction is also known as a) Accelerated solvent extraction b) Enhanced solvent extraction c) both a & b d) none of these	
	13)	In aqueous alcoholic extraction process a) alcohol is generated in-situ b) alcohol is added c) alcohol is not added d) both a & b	
	14)	Soxhlet apparatus was developed in 1879 by a) Franz von Soxhlet b) Galen c) Hippocrates d) All of these	
Q.2	A)	 Answer the following (Any Four). 1) Define Lixiviation. 2) Define Cosmeceuticals. 3) Enlist various herbal / natural origin cosmetic products used by women. 4) What properties a hair oil should have? 5) Name the drugs belonging to the family - Euphorbiaceae, Umbelliferae, Lythraceae & Meliaceae. 	08
	B)	 Write notes on (Any Two). 1) Discuss the pharmacognostic scheme (synonym, biological source, family, uses) of Ambahaldi. 2) How herbs are dried? What is the purpose of drying herbs? 3) Give the advantages and disadvantages of Alcohol or ionic liquid as solvents for extraction. 	06
Q.3	A)	 Answer the following (Any Two). 1) What are alkaloids? How alkaloids are extracted? 2) Define sterilization. How raw herbs are sterilized? 3) Discuss the pharmacognostic scheme (synonym, biological source, chemical constituents family, uses) of Bawchi. 	80
	В)	 Answer the following (Any One). 1) Name the innovative techniques for extraction. Explain Pressurised liquid extraction. 2) Discuss the pharmacognostic scheme (synonym, biological source, chemical constituents family, uses) Haldi. 	06
Q.4	A)	 Answer the following (Any Two). 1) How herbal cosmetics are evaluated? 2) What is the importance of herbal cosmetics? 3) What are the various advantages of herbal cosmetics over synthetic cosmetics? 	10
	B)	 Answer the following (Any One). 1) Comment on "Market demand of cosmetics & cosmeceuticals". 2) Name the method to extract essential oils from hard & woody drugs. Explain the same. 	04
Q.5	Ansv	ver the following (Any Two).	14
	1) 2) 3)	Comment on "Herbal Cosmetic Industry in India". Comment on various "Indian Herbal Extracts" used in cosmetics. Prepare a formula for Herbal hair oil with multiple uses in a single formulation. Give its preparation.	

Seat No.					Set	Р
Five	Yea	rs Integrated	M. Tech (Semes Oct/Nov COSMETIC TE	-202		on:
		Material Ma			ory Control (CT3709)	
		: Friday,22-12-20) AM To 02:00 PM			Max. Mark	s:70
Instru	uction		ns are compulsory. the right indicate ful	ll mar	ks.	
Q.1	Multi 1)	ple choice ques The JIT concept of		ntrod	uced in Japan under the name	14
		a) Kaizen c) Ekagai		,	Kanban Shiketsu	
	2)	Purchasing is a an a	subset of blanning	b) d)	Promotion activity Procurement	
	3)	products from the processes. Sentence B : Sir	e minimum variety o	of mar rned and d b)	ducing maximum variety of terials, parts, tools and with the reduction of product esign. False; False True; False	
	4)	a) Company ai	nd end user	b)	ships between Two government firms Agent and Principal	
	5)	In meth piece is separate a) Census insp c) Random Ins	ely inspected. Dection	b)	quality in detail is done as every Sampling Inspection None of above	
	6)		nstallments, delivery e. ct	of ea	antity of materials to be delivered ach installment being completed Running contract System contract	
	7)		ne specialized proce ttems	esses	use but their life can be . Salvageable Items None of the above	
	8)	Identify the nece a) Indent c) Rejection no	essary document of	store b)	_ •	

	9)	A short life item is best to be stored at to prevent delays in transit. a) at the site of usage b) at centralized store c) both A and B d) none of above	
	10)	The term Inventory refers to a) Raw material b) Material in process c) Finished product d) All the above	
	11)	As per ABC analysis, 'Group A' items are a) Low value item b) High Value items c) Mid value items d) None of above	
	12)	Identify the different word from given group below. a) Purified water b) Bees wax c) Cocca butter d) Sunscreen lotion	
	13)	method is very suitable for a relatively high inflationary economy. a) Replacement price b) Simple average price c) FIFO d) All the above	
	14)	In decentralize purchasing, every department purchase as per their need, this is also called as a) Localized purchasing b) Central Purchasing c) Spoke system d) Hub System	
Q.2	a)	 Answer the following. (Any Four) 1) Define material management. 2) What do you mean by consumable items? Give 4 example of consumable items of cosmetic industry. 3) What is Global tender? 4) Define inventory and describe its types. 5) What is inventory variant and pipeline inventory? 	08
	b)	 Write Notes. (Any Two) 1) '3S' as scope of material management. 2) Law of Sales Goods Act 1930 related to purchase. 3) Write down the general criteria for layout of store. 	06
Q.3	a)	 Answer the following. (Any Two) 1) Describe methods of Inspection. 2) Write a note on Two bin system. 3) What is obsoletestock? How will you control the obsolescence in industry? 	80
	b)	 Answer the following. (Any One) 1) Explain the cost associated with Inventory. 2) Explain FIFO and LIFO method of Stock valuation. 	06

Q.4 a) Answer the following. (Any Two)

10

- Define material management, give its scope with respect to Purchase and Inventory control.
- 2) An invoice of chemical A and B provide the following information.

	Amount
Chemical A: 10000 Kg @ 10 Rupees per Kg	100000
Chemical B: 8000 Kg @ 13 Rupees per Kg	104000
Basic Custom duty @ 10% (No Credit allowed)	20400
Railway Fright:	3840
Total cost	228240

Shortage: Chemical A : 500 Kg, Chemical B: 320 Kg **Assume Deterioration** @ 2%

So, Calculate the rate per Kg for chemical A and chemical B based on above information.

3) Write about advantages and Disadvantages if JIT.

b) Answer the following. (Any One)

04

- What is scrap? Explain scrap disposal and scrap control method in industry.
- 2) Write down the objectives of Inventory control. What do you mean by Inventory shrinkage?

Q.5 Answer the following. (Any Two)

14

- Explain Role of QC team in receiving of material, How the Inspection is done during receiving of material or finished goods.
- 2) Give detail account on centralized purchase and decentralize purchase.
- 3) Explain.
 - i) forecasting techniques
 - ii) Time series analysis

Seat	Sat	D
No.	Set	

Five Years Integrated M. Tech (Semester - VIII) (New) (CBCS)

			COSMETIC TEC Colours in Cosme	HN	OLOGY	
			onday,18-12-2023 1 To 06:00 PM		Max. Marks:7	'0
Instr	uction		1) All questions are compulsory. 2) Figures to the right indicate full (3) Draw a neat diagram and equat			
Q.1	Multi 1)	Wh a) b) c)	choice questions. at does color do? Fills in empty spaces Makes things artsy Colors can draw attention; have a Takes up space	an e	motional and psychological impact	14
	2)	a)	nixture of a color with black is what Value Saturation	t? b) d)	Tint Shade	
	3)	a)	nixture of a color with White is wha Value Saturation	t? b) d)	Tint Shade	
	4)	a) b)	YK stands for Cyan, Magenta, Yellow, and Blac Cedar, Margarine, Yellow, and Kr Can't Mind Your Krazy rules Cedar, Mustard, Yellow, and Blac	ysta	aline	
	5)		at term is given to the fear of color Farbophobia Buntophopia	ırs? b) d)	Chromophobia Colorophobia	
	6)		ich of the following types of colors Primary colors Tertiary colors		found on a color wheel? Secondary colors All of the answers are correct	
	7)	a) c)	is another word for the brightne Value Hue		of a color. Intensity Complementary	
	8)	a)	at does certified color mean? Synthetically produced High purity	b) d)	FD&C Color Pigments All of the above	
	9)	Wh a) c)	ich of the following is a certificated FD&C Red No. 40 Allura Red AC	b) d)	or? FD&C Red No. 3 Both A & B	

	10)	The loss of color, when dyed fabric is immersed in water is called a) Crocking` b) Bleeding c) Shading d) Barre	
	11)	Dye is a substance used to impart color to	
		a) textiles b) paper c) leather d) All of the above	
	12)	Lake Colors are easily mixed with a) fats b) sugars c) oils d) All of the above	
	13)	Green color represents a) new beginnings b) calming effect c) down-to-earth significance d) All of the above	
	14)	Natural dyes are a) Plant Origin b) Animal Origin c) Mineral Origin d) All of the above	
Q.2	A)	Answer the following (Any Four) 1) What means Chroma? 2) What's the difference between hue and chroma? 3) What is the another word for Hue? 4) What is a tint art? 5) What are the benefits of Pigment Colours?	;
	B)	Write notes on (Any Two) 1) What is meant by FDA certified colors? And explain its types. 2) Write down the details of Dye. 3) Explain in detail about Pigment and Lake colours.	j
Q.3	A)	Answer the following. (Any Two) 1) Write a note regarding knowledge of color and light. 2) What is colour determination? 3) Enlist any four examples of Basic dyes	;
	B)	Answer the following. (Any One) 1) Draw the structure of i) Reactive black 5 ii) Acid blue 25 iii) Methylene blue 2) What are the advantages of Synthetic dye?	j
Q.4	A)	Answer the following. (Any Two) 1) Explain the toxic effect of dyes. 2) Enlist any five uses of Azoic dyes. 3) What factors affect the color of the components?	1
	B)	Answer the following. (Any One) Write a note on Warm colors, Cool colors, Happy color and Sad colors. What are the important applications of Acidic and Direct dyes?	
Q.5	a) b)	rer the following. (Any Two) refine colors and explain in detail about Synthetic dyes. Irite in detail advantages and disadvantages of Natural dyes. In detail advantages and disadvantages of Natural dyes.	•

Seat	Set	D
No.	Jet	

Five Years Integrated M. Tech (Semester - VIII) (New) (CBCS)

	Examination: Oct/Nov-2023						
	Cosmetic Technology - VI (CT3803)						
•			esday,19-12-2023 1 To 06:00 PM		Max. Marks:70		
Instr	uction	4	1) All questions are compulsory. 2) Figures to the right indicate full r 3) Draw a neat diagram and equati 4) Use of calculator and log table is	ions	wherever necessary.		
Q.1	Choc	ose 1	the correct alternative		14		
	1)	a)	nscreens work by Absorbing the sun's rays Scattering the sun's rays		Reflecting the sun's rays All of the above		
	2)	a) ¯	preparation the blend of NaC Brushless shaving stick Lather shaving cream		KOH: TEA is used. Sunscreen Nail paint		
	3)		loosen the hard skin of warts, cier to peel off the foot.		-		
		,	Oxalic acid Perchloric acid	b) d)	salicylic acid Stearic acid		
	4)	,	is used to strip the nail polish fr Nail lacquers Nail elongators		the nail plate. Nail hardener Nail enamel remover		
	5)	is added to avoid separation of solid powder and liquid phase of					
		a)	thpaste. Humectant Astringent	b) d)	Binder Diluent		
	6)		w often should sunscreen be applie	ed?			
		,	Every half hour Every 2 hours	b) d)	Every hour Every 3 hours		
	7)	The a) b) c) d)	e sticks & bar soap differ from each Stick form contain a small amoun It composed mainly of stearic acid It contain lager amount or % of K All of the above	t of	glycerin.		
	8)	a) c)	is a type of callosity. Salves Lacquer	b) d)	Corn plaster		
	9)	•	astringent is used in mouthwas	sh.			
	,	a)	Sorbitol Zinc chloride	d)	Xylitol Carmine		

	10)	is secondary film-forming resin used in nail polish. a) Dibutyl phthalate b) Xylene	
	11)	c) Polyamide d) Guanine The hours of the day when you are most at risk from the sun's rays are: a) 10 a.m. to 4 p.m. b) 8 a.m. to 1 p.m. c) 7 a.m. to 12 p.m. d) None of the above	
	12)		
	13)	Foot care emulsions contain % lipids. a) 1-2	
	14)	forms of dentrifrices are rarely prepared. a) Liquid b) Solid c) Semisolid d) All of the above	
Q.2	a)	Answer the following (Any Four) 1) Comment on suntan is good or bad. 2) What do you mean by lather shaving creams. 3) Distinguishing features of warts and plantar corns 4) Define SPF 5) Write down ideal properties of dentifrice.	08
	b)	Write notes on (Any Two) 1) Callosity 2) Pre-electric - shave lotion. 3) Nail moisturiser	06
Q.3	a)	 Answer the following. (Any Two) 1) Discuss in detail side effects of sunlight 2) Discuss in detail influence of foot ware on foot health. 3) Explain the effect of sun rays on skin. 	08
	b)	 Answer the following. (Any One) 1) Define dentifrices, classify them and Explain preparation of toothpaste. 2) Discuss in detail manufacturing and evaluation of sunscreen 	06
Q.4	a)	 Answer the following. (Any Two) 1) Discuss the evaluation of nail lacquers. 2) Explain in detail rinses as oral hygiene product. 3) Define SPF. How do you calculate it? Explain in detail factor affecting on SPF value of sunscreen. 	10
	b)	Answer the following. (Any One)1) Discuss in detail formulation of toothpaste.2) Discuss in detail tanning methods.	04
Q.5	Ans a) b)	wer the following. (Any Two) Elaborate Athletes foot. Discuss in detail foot preparation. Define shaving preparation. Classify them. Discuss in detail dry shaving preparation.	14
	c)	Define sunscreen. Classify them according to working principle of sunscreen. Discuss in detail sunscreen agent.	

Seat	Sat	В
No.	Set	

FIV	e yea	•	iester- VIII) (New) (CBCS) Examinati Nov-2023	on:
			TECHNOLOGY	
		Cosmeceuticals I	Microbiology (CT3804)	
		e: Wednesday, 20-12-2023 DPM To 06:00 PM	Max. Mark	s: 70
Instr	uction	ns: 1) All questions are compuls	•	
		2) Figures to the right indicat 3) Draw neat diagrams and o	e full marks. give equations wherever necessary.	
Q.1	Cho	ose the correct alternative fror	n the following options.	14
	1)	Father of microbiology isa) Louis Pasteur		
		c) A.V. Leeuwenhoek	b) Lister d) Robert Koch	
	2)	The main feature of prokaryotic		
		a) Absence of locomotionc) Absence of nuclear materia	b) Absence of nuclear envelopeal d) Absence of protein synthesis	
	3)		e compound microscope.	
		a) 0.2 micronc) 0.2 Angstrom units	b) 0.2 millimeterd) 0.2 centimeter	
	4)	, 3	f microbial species to produce disease is	
	,	known as	·	
		a) Pathogenc) Infection	b) Virulenced) None of these	
	5)	The bacterial cells are at their r	netabolic peak during	
		a) Lag phase	b) Log phase	
	C /	c) Stationary phase	d) Decline phase	
	6)	a) Peptidoglycan	egative bacteria is present in b) Lippolysacharide	
		c) Theichoic acid	d) Inner membrane	
	7)	The viruses that live as parasite		
		a) Fungic) Bacteriophages	b) Commenselsd) None of these	
	8)	Staining material of gram positi	,	
	·	a) Fast green	b) Haematoxylon	
	0)	c) Crystal violet Virus will contain	d) Safranin	
	9)	a) Cell membrane	b) Cell wall	
		c) DNA	d) DNA or RNA	
	10)	Bacillus is an example ofa) Gram positive bacteria	 h) Gram pagative bacteria	
		c) Virus	b) Gram negative bacteriad) Viroid	

	11)	Gram staining is an example for a) Simple staining b) Differential staining c) Negative staining d) None of these	
	12)	The study of algae is known as a) Algalogy b) Phycology c) Mycology d) Bacteriology	
	13)	The molds obtained nutrition from dead and decaying matter which are called a) Saphrophytes b) Parasites c) Commensals d) None of these	
	14)	The technique used to avoid all microorganisms is accomplished by a) Sterilization b) Disinfection c) Surgical sterilization d) Disinfection Sterilization	
Q.2	A)	Answer any Four of the following questions. 1) Discuss features of Autoclave 2) Define Viruses 3) Define Disinfectant 4) Define stains 5) Discuss structure of Algae	08
	B)	 Write Notes on (Any Two) 1) Write Difference between Mold and Yeast. 2) Describe features of Protozoa. 3) Define Preservatives with example. 	06
Q.3	A)	 Answer the following (Any Two) 1) Give an account on Synthetic media. 2) Write characteristics of Bacteria. 3) Write a note on Dry heat sterilization. 	80
	B)	Answer the following (Any One)1) Write note on Factors that influencing Antimicrobial activity.2) Give an account on enrichment techniques.	06
Q.4	A)	 Answer the Following (Any Two) 1) Write general characters of algae. 2) Write an account on Radiation and osmosis in physical control of microorganism. 3) What is serial dilution technique? Discuss its features. 	10
	B)	Answer the following (Any One) 1) What is Fungi? 2) What is streak plate method?	04
Q.5	Ans a) b)	wer the following (Any Two) Write briefly fungal classification. Write a note on standardization of disinfectant Phenol coefficient. Give an account on Grams staining and its features	14

Seat No. Set P

Five Year Integrated M. Tech. (Semester - VIII) (New) (CBCS) Examination:

		Oct/Nov COSMETIC TEC Herbal Cosmetic	CHN	OLOGY	
		e: Thursday, 21-12-2023 0 PM To 06:00 PM			Max. Marks: 70
Insti	uction	ns: 1) All questions are compulsory. 2) Figures to the right indicate full	marks	3.	
Q.1	Multi 1)	iple choice questions. Bhringraj belongs to family a) Fabaceae c) Asteraceae	b) d)	Ostiraceae None of the above	14
	2)	Undesired plants in the field are known a) Pests c) Cover crop	vn as b) d)	 Weeds Buffers	
	3)	Ficusgolmerata belongs to family a) Moraceae c) Margoaceae	b) d)	<i>Malvaceae</i> None	
	4)	Advantage of biopesticides is / are _ a) Natural c) Effective in small concentration	b) d)	Less toxic All	
	5)	Flavors and perfumes are a) essential oils c) oils	b) d)	volatile oils liquids	
	6)	Ark contains a) Herbal juices c) Medicated butter	b) d)	Powder drugs Distillates of herbs	
	7)	Rubia cordifolia was an economically regions of Asia. a) red pigment c) orange pigment	b) d)	ortant source of a white pigment All of the above	_ in many
	8)	Carrot is originated from in we a) India c) China	estern b) d)	Asia. Brazil Afghanistan	
	9)	Herbs are defined as plant with a) Aromatic property c) Medicinal properties	 b) d)	Flavoring properties All of the above	
	10)	 Evaluation means a) Determination of quality & purity b) To confirm identity of drugs c) To detect the adulteration d) All of the above 	of dru	ıg	

	11)	Stress testing is done a) To determine stability b) To establish degration pathway c) Both a & b d) None of the above	
	12)	IPR means a) Indian Pharmaceutical incorporation b) International Property Rights c) Indian Pharmacy Rights d) Intellectual Property	
	13)	Schedule Z refers for a) Drug and Cosmetic Act b) Homeopathy Act c) Medical Termination of Pregnancy Act d) all of the above	
	14)	Powder made by calcification is also known as a) Churna b) Bhasma c) Pak d) Ghrita	
Q.2	A)	Answer the following (Any Four) 1) What are herbal cosmetics? 2) Which herbs are used in skin cosmetics? 3) Explain the importance of <i>Tulsi</i> . 4) Explain the cosmetic importance <i>Hibiscus</i> . 5) What are the cosmetic benefits of <i>Pomegranate</i> ?	80
	B)	 Write Notes on (Any Two). 1) Plants species used in hair care. 2) Importance of herbs in cosmetics. 3) Cosmetic importance of <i>Palash & Seetaphal</i>. 	06
Q.3	A)	 Answer the following (Any Two). 1) Write note on <i>Tulsi</i> with morphological characters & extraction by appropriate method. 2) Write note on cosmetic containing Papaya along with its chemical constituent. 3) Write note on <i>Lotus & Beetroot</i> with their biological & geographical importance. 	08
	B)	 Answer the following (Any One). Write a note on disadvantages & advantages of herbal cosmetics. Describe any two extraction methods. 	06
Q.4	A)	 Answer the following (Any Two). Describe Ficusgolmerata (umber) as skin care cosmetic, write down their biological, geographical sources & cosmetic uses. Describe <i>Curry leaves</i> as hair cosmetic, write down their biological, geographical sources with chemical constituents and cosmetic uses? Describe extraction methods in <i>Tulsi</i> with their chemical constituents. 	10
	B)	Answer the following (Any One). 1) Write down difference between herbal creams & herbal Shampoo. 2) Write down difference between Lotion & Hair tonics.	04

Q.5 Answer the following (Any Two).

- 14
- 1) Explain skin care of *Kesar (Saffron)* & explain their biological source, geographical source, chemical constituent with cosmeceuticals uses.
- **2)** Explain Hair care by *Neem* their biological source and geographical source, chemical constituent with cosmeceuticals uses.
- 3) Write down advantages in formulating herbal beauty products.

Seat		Sat	D
No.		Set	P

Five Years Integrated (M. Tech) (Semester - VIII) (New) (CBCS)

	1 10	Examination: O			
		COSMETIC TEC			
_		Management and Organizat	iona		
		e: Friday,22-12-2023 0 PM To 06:00 PM		Max. Marks	:70
Instr	uctior	ns: 1) All questions are compulsory.			
		2) Figures to the right indicate full	mar	ks.	
Q.1		iple choice questions.		he art of gotting things done	14
	1)	defined the term managemen through others.	lası	ne art of getting things done	
		a) John. e. Mee c) George. R. Terry	b) d)	Ivancerich, Donnelly and Gibson Mary Parker	
	2)	Identify the different word from given	grou	ıp below Need of knowledge,	
		Prestige, Recognition, clothing. a) Need of knowledge	b)	Prestige	
		c) Recognition	,	clothing	
	3)	Legitimate power is also known as _		<u></u>	
		a) Positional powerc) Personnel power	d)	Expertise power None of above	
	4)	Following are the methods of departral a) Departmentation by Process b) Departmentation by Territory c) Departmentation by customer d) Departmentation Employee cour		ation except.	
	5)	Identify the correct sequence of stage A) Storming B) Performing C) Forming D) Norming E) Adjourning a) E,D,C,B,A c) A,B,C,D,E	b)	C,A,D,B,E D,C,E,B,A	
	6)	Sentence A: Management is Invisible Sentence B: Management is process a) True; False c) False; True	of o		
	7)	is the ability to influence othera) Motivationc) Power	ers b b) d)	ehavior. Control Inspiration	
	8)	The term MBO was coined by a) Peter Drucker c) Henry Fayol	b) d)	F.W. Taylor Louis Allen	

	9)	Flo	oat is			
		,	Spare funds Spare Product	•	Spare Inventory Spare Time	
	10)			tartin	g and keeping a person at work in	
			organization.			
		,	Motivation	p)	•	
		c)		d)	Leader	
	11)		o enrichment is			
			Upgrading of responsibility Both A and B	p)	_	
	4.0\	,		d)	None of above	
	12)		anning is function.	L١	Casandami	
		,	Primary Tertiary	b) d)	Secondary None of above	
	40)	,	•	,		
	13)		llowing are the examples of extrin Attitude		•	
		,	Punishments	,	Rewards Leadership styles	
	4.4\	,		,		
	14)		means of getting a large number or ry short time is known as		as from a group of people in a	
			Histogram		Pareto Analysis	
		,	Talent hunting	ď)	Brainstorming	
		_				
Q.2	a)		wer the following (Any Four)			80
		1) 2)	Explain the term Esprit de Corps Explain in short about Illumination		neriment	
		3)	Explain the term Committee.		poriment.	
		4)	Write down the Alderfer's ERG to	heory	<i>/</i> .	
		5)	Define and Classify activity.	-		
	b)	Writ	e Notes on (Any Two)			06
	•	1)	Difference between Motivation a	nd In	spiration.	
		2)	Departmentation of Cosmetic Inc		y by Products.	
		3)	McClelland's Achievement Mode	el.		
Q.3	a)	Δne	wer the following. (Any Two)			08
Q.U	u,	1)	Management is A Science or An	Art.	share vour views.	UU
		2)	Explain different types of planning		•	
		3)	What do you mean by Job Enric	hmer	nt?	
	b)	Ans	wer the following. (Any One)			06
	,	1)	Write about Frederick W. Taylor	conti	ribution to evolution of	
			management.			
		2)	Define management and explain	diffe	erent levels of Management.	
Q.4	a)	Ans	wer the following. (Any Two)			10
		1)	What is KAIZEN and mention '59		•	
		2)	What is Motivation? Comment of	•		
		3)	•	Con	trolling, Comment on limitations of	
		_	Controlling.			<u> </u>
	b)		wer the following. (Any One)	- al · ·	th Delegation was in Del	04
		1)	authority.	a Wi	th Delegator part in Delegation of	
		2)	Explain financial motivation.			

- Q.5 Answer the following. (Any Two)
 a) Define Team and state different types of Team.
 b) Explain theories of Group Formation.
 c) Elaborate Maslow's Hierarchy of Needs in detail.

14

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Seat No.					Set	P
Five	Yea	_	Oct/I	Nov-202 TECHN	~	tion:
-		e: Friday, 05-01- D AM To 02:00 F			Max. Mai	ks: 70
Instru	uction		ons are compulso the right indicat	•	S.	
Q.1	1)	a) Homogeniz c) Ultrasonic	article size in cos zer device	b) d)	ulsion can be achieved by use of Colloidal mill All of above	
	2)	a) 0.10 nm to c) 0.50 nm to	0.20 nm	b)	s vary from 0.20 nm to 0.45 nm None of above	
	3)	Aoperation the lipsticks. a) Blistering c) Flaming	n is usually perfo		nprove the finished appearance of Waxing All the above	of
	4)	results in a) Low HLB		b)	e hydrophilic group (e.g. glycerir High HLB emulsion destabilization)
	5)	Identify the difficient lontophoresis, a) Enzymes c) Iontophore	Surfactants.		p below. Enzymes, Polymers, Polymers Surfactants	
	6)	Generally accers/are a) 0.9% Salinc) 10% sucro	e	hich are u b) d)	sed in hydration of lipid cake 5% dextrose All the above	
	7)	Fatty ac a) Long chair c) Both A and	1	y reported b) d)	as skin penetration enhancers. Medium chain None of above	
	8)	With the increase preservative a) Increases c) Remains s	·	unsaturatio b) d)	on, the effectiveness of Decreases None of above	

9)	releases the most formaldehyde of any FRP. a) Diazolidinyl urea b) Imidazolidinyl urea c) Polyoxymethylene urea d) All of above	
10)		
11)	Nano emulsions aresystem. a) Monophasic b) Biphasic c) Triphasic d) Dimensionless	
12)	nanoparticles remain unchanged upon their skin application. a) Inorganic b) Polymeric c) Organic d) Surfactant derived	
13)	are matrix systems in which the drug is physically and uniformly dispersed. a) Nano capsule b) Giant nanosphere c) Nanospheres d) None of above	
14)		erbs.
A)	 Answer the following. (Any Four) Explain damp method of compact preparation. Define Mixing. What are category 1 and category 2 products as per SCCP and give the microbial limits for same. Explain how manufacturing process may result in contamination in industry. Write down the ideal properties of penetration enhancers. 	08
B)	 Write notes on. (Any Two) 1) Give the name of carbon based nonmaterial and explains their use is cosmetic application. 2) Draw neat labeled diagram of colloidal mill. 3) Give drawbacks of synthetic and natural preservative. 	06 in
A)	 Answer the following. (Any two) Write about liposome preparation method by ether injection method. Discuss microencapsulation by solvent evaporation Comment on applications of Cyclodextrins in cosmetics. 	
B)	 Answer the following. (Any one) 1) Elaborate factors effecting percutaneous absorption. 2) Write down the physical properties effecting the solid-solid mixing? Explain solid-solid mixing by double cone mixture. 	06

Q.2

Q.3

Q.4	A)	 Answer the following. (Any two) 1) Discuss the polymeric nanoparticles involving nano capsules and nanosphere. 	10
		 Write about formaldehyde and formaldehyde releasing preservatives. Explain 'Vertical screw mixture' and 'V blender'? 	
	B)	 Answer the following. (Any one) 1) Give main objective of COSMOS and explain the benefits of synthetic preservatives. 2) Define microparticle; write down the advantages of nanoparticle. 	04
Q.5	Ans	wer the following. (Any two)	14
	a)	Describe 'Parabens' as controversial ingredients and write down the alternative for same.	
	b)	Explain toxicological impact of nanoparticles on skin.	
	c)	Explain general mechanism of action of 'Penetration Enhancers'. Give advantages and disadvantages of penetration enhancers. Enlist any 4 names of chemical enhancers used in Cosmetics.	

Seat	Set	P
No.		•

Five Years Integrated (M. Tech) (Semester - IX) (New) (CBCS) Examination: Oct/Nov-2023

			COSMETIC TE	CHN	IOLOGY
			Advanced Cosmetic Te	echn	• • •
-			nday, 07-01-2024 I To 02:00 PM		Max. Marks: 70
Instr	uction) All questions are compulsory.) Figures to the right indicates f	ull ma	arks.
Q.1	Multi		choice questions.		14
	1)		is used to remove different t		
		a)	•	,	Nail bleach
		c)	Gel polish	d)	None of the above
	2)	Sta	rch used in the preparation of n	nicros	phere is in nature.
		a)	<u> </u>	b)	Biocompatible
		c)	Bioadhesive	d)	All of the above
	3)	Pho	ospholipids are in nature		
		a)	Hydrophilic	b)	Lipophilic
		c)	Amphiphilic	d)	None of the above
	4)		micronutrient protects the sl	kin fro	om damaging effect of ultraviolet light.
		a)	Omega-3 and 6 fatty acid	b)	Carotenes
		c)	Flavonoids	d)	All of the above
	5)	RS	grade of nitrocellulose has solu	bility	in
	•	a)	=	b) Î	Ketones
		c)	Glycol ethers	d)	All of the above
	6)	The	e alkali treated collagen is referr	ed as	s gelatin.
	•	a)	Type A	b)	Type B
		c)	Type III	d)	None of the above
	7)		are mainly used as organic ր	hase	in the preparation of cosmetic
		org	anogels.		
		a)	Mineral Oil	b)	Vegetable Oil
		c)	Both a and b	d)	None of the above
	8)		team will develop the formu	la and	d product prototype.
		a)	Packging	b)	R and D
		c)	Marketing	d)	Production
	9)		is an example of synthetic b	iode	gradable polymer.
		a)	PLGA	b)	PLA
		c)	PCL	d)	All of the above
	10)		is an example of low boiling	solve	ent.
		a)	Butyl alcohol	b)	Butyl lactate
		c)	Ethyl lactate	d)	Methyl acetate

	11)	The organogel formation depends on the a) Organic phase b) Characteristic of the gelling molecule c) Temperature d) All of the above	
	12)	is a quaternary ammonium compound used in the preparation of cuticle cream. a) Cetyl pyridinium chloride. b) Stearyl dimethyl benzyl ammonium chloride. c) Both a and b d) None of the above	
	13)	 Which of the following statement is correct? a) Chitosan is prepared by copolymerization of two different monomer. b) Bulk polymerization leads to the formation of pure polymer. c) Shell is intrinsic part. d) Cross linking achieved by heat is suitable for thermolabile active agents 	i.
	14)	It is dangerous to use aerosol hairspray near a) Heat b) Fire c) Both a and b d) None of the above	
Q.2	A)	 Answer the following. (Any Four) 1) Define the following: a) Microencapsulation b) Gelator 2) What is the role of propylene glycol in cuticle remover and write down the benefits of cuticle remover. 3) How organogels are prepared. 4) Enlist the role of active ingredient used in Nutracosmetics. 5) How PLGA microspheres are prepared. 	08
	B)	 Write notes on the following. (Any Two) 1) Write a note on diluents used in nail polish. 2) Write a note on salt addition technique for phase separation and coacervation. 3) Write a note on non-ionic surfactant used in niosomes. 	06
Q.3	A)	 Answer the following. (Any Two) Write down the procedure of spray drying and spray congealing methods for the preparation of microparticles. Add a note nitrocellulose as film forming agent in nail polish. Write down the steps involved in development of new cosmetics. 	08
	B)	 Answer the following. (Any One) 1) Explain the cosmetic application of liposomes. 2) Explain the procedure of preparation of microsphere by single and double emulsion technique. 	06

		SLR-DF	- 76
Q.4	A)	 Answer the following. (Any Two) 1) Describe cuticle oils. 2) Explain the components of liposomes. 3) Add a note on Nutracosmetics. 	10
	B)	 Answer the following. (Any One) 1) Add a note on carrageenan as a biodegradable polymer used in microencapsulation. 2) Which factor to be considered while designing nail polish. 	04
Q.5	Ans a) b) c)	wer the following. (Any Two) Write down the methods of preparation of niosome. Explain the plasticizers used in the preparation of microcapsules. Explain the evaluation parameters of nail polish.	14

No. Set P	Seat No.	Set P
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Five Year Integrated M. Tech (Semester - X) (New) (CBCS) Examination: Oct/Nov-2023

		COSMETIC TEC			
		Research Methodo	logy	(CT4001)	
-		e: Friday, 05-01-2024 0 PM To 05:00 PM		Max. Marks	s: 35
Instr	uctio	ns: 1) All questions are compulsory. 2) All questions carry equal marks.			
Q.1	Choo 1)	Technical report involves Steps a) Five c) Seven	b) d)	Six Eight	05
	2)	In manuscript, the typing spacing sho a) Double spaced c) One and half spaced	b)		
	3)	High flexibility is the example of a) Random c) Simple	b)	npling Cluster None of the above	
	4)	In data editing, coding involves a) Re-coding c) Repeating		nswers. Re-shuffling Editing	
	5)	There are types of research rep a) Two c) One		Three Four	
Q.2	Ansv 1) 2) 3) 4) 5) 6)	What is significance of report writing? What is descriptive research? How dose researcher collect the data? Give the difference between personal interview and telephonic interview?			10
Q.3	Give a) b)	the answer of the following. Explain sampling error. Define research, explain its types and	l impo	ortance.	10
Q.4	Give a) b)	the answer of the following. Describe the objective of Research Explain the mechanics of writing a res	searcl	n report.	10