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Mid-Sem Exam

CH-419: Consumer Chemistry

Part -1

Name

Roll no

Q1. Fill-up the appropriate contents in column-II for the given contents (in page no.3) for the appropriate content of column-I.

Column-I	Column -II
Androgenetic alopecia	Hair loss ✓
Dihydrotestosterone	cause of male baldness ✓
Hair conditioners	Salicylic acid ✗
Keratolytic agent	Cetyltrimethylammonium chloride ✗
Tensile strength of tyres	Cold ✓
Sodium polyacrylate	lost it note ✗
Wet indicator/pH indicator	Sugarcane juice ✗
Spray mint	Sugarcane juice cinnamon ✓
Cannabinol	Marijuana ✓
Glycolic acid	Cinnamon Boron ✗
Apocrine glands	Cause of body odour ✓
Crystalline silica	Ruby ✓
Blue diamond	Bromophenol blue ✗
Moth ball	1,4-dichlorobenzene ✓
Potassium ion exchange	Gorilla glass ✓
Aluminium	super absorbent ✗
Tooth whitening	Hydrogen peroxide ✓
Tyres	Styrene-butadiene ✓
3M	Rocket fuel ✓
Purple K	Potassium bicarbonate ✗

Q2. What are the main uses of the following? (Borrow the content given in page 3)

Substances	Use
1 Zinc pyrithione	Rocket fuel ✗
2 Monoxidil	Mosquito repellent ✓
3 Xylitol	hair care product ✗
4 Triclosan	prevent hair loss ✗
5 $Al_2(OH)_5Cl$	Ingredients of antiperspirant ✓
6 Picaridin	Sugarless sweetener ✗
7 1,4-Dichlorobenzene	component of moth ball ✓
8 Montmorillonite	Mosquito repellent ✗
9 Carboxamide peroxide	Carboxamide peroxide ✗
10 Ammonium perchlorate	deodorant ✗

Q3. What did they discover/contribute?

Name	Discovery
John Dunlop	
Dr. Spencer Silver	Post-it note ✓
Art Fry	
Bette Nesmith Graham	Whitener ✓
G. N. Ramachandran	

Q4. For the given Neuro-transmitters suggest their mode of action and how their deficiency affects us.

(Borrow the content from page 3)

Neuro-transmitters	Mode of action	Deficiency Affect
Dopamine	Love hormone	feeling lonely X
Oxytocin	motivation	lack of motivation X
Serotonin	feeling important	anxiety low self esteem ✓
Endorphins	brief euphoria	anxiety ✓

Q 5. Suggest the corresponding chemicals test for the following drugs (test

Drugs	Chemical test
Cocaine	Scott test
Barbiturates	Wagenaar's test
Lysergic acid	p-aminobenzoic acid
Forensic blood test	phenolphthaleine

Chemical test: p-Aminobenzoic acid, Phenolphthaleine, Wagenaar's test, Scott test

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Part -II

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Answer the following questions to the point (not more than 4-5 sentences)

- ✓ Q1. Define desiccant. Why are they used in packaged products?
- ✓ Q2. What is Locard's exchange principle in forensic science? How it is helpful in tracing/identifying criminal
- ✓ Q3. What are the green and blue coating found in an old copper utensil? How they can be cleansed? .
- ✓ Q4. How do slats remain free-flowing even during humid weather?
- ✓ Q5. What is the antidote for MeOH poisoning (in the context of the Hooch tragedy)
- ✓ Q6. What are the various causes of acidity? Name the major component of anta acid?
- ✓ Q7. What is/are the essential difference between deodorants and antiperspirants?
- ✓ Q8. How do salts of aluminium help control perspiration and bacterial growth?
- Q9. What is a pheromone? How it is useful in paste (insect) control?
- Q10. Even though sebum is essential for maintaining healthy hair, too much of it can cause problems explain
- Q11. Why do mostly male get bold? What is the role of dihydrotestosterone (DHT)?
- Q12. Why alpha-hydroxy acids are so popular in skin care products?
- ✓ Q13. How mosquito repellent (N,N-diethyl-3-methylbenzamide) DEET works?
- ✓ Q14. What is the purpose of a wet indicator in the disposable nappy? How it works?
- ✓ Q15. What is the chemical basis of depression?
- ✓ Q16. How do antidepressants work by blocking reabsorption?
- ✓ Q17. How does pain-relieving balm work? What are the ingredients of balm?
- ✓ Q18. What is contrast agent? What should be the properties of an ideal contrast agents
- ✓ Q19. What are the advantages and disadvantages of Liquid mosquito repellent?
- Q20. What are the major benefits of β -hydroxyacids over α -hydroxyacids?

Contents that need to be selected and filled in column II for Q1

Column -II
✓ Potassium bicarbonate ✓
Post it note ✓
Cetylmethylammonium chloride ✓
✓ Salicylic acid ✓
✓ Hair loss ✓
✓ Cords ✓
Super absorbent ✓
✓ Bromophenol blue ✓
✓ Cause of male baldness ✓
✓ Cinnamon ✓
✓ Marijuana ✓
Rocket fuel ○
✓ Sugar cane juice ✓
✓ Gorilla glass ✓
✓ Cause of body odour ✓
✓ Ruby ✓
Boron ○
✓ Hydrogen peroxide ✓
✓ 1,4-Dichlorobenzene ✓
✓ Styrene-butadiene ✓

Content for Q2 to be filled in the Use column

Use
Antimicrobial agent / hair care product
Rocket fuel
✓ Prevent hair loss
Desiccant
Sugarless sweetener
Mosquito repellent
✓ Deodorant
✓ Ingredients of antiperspirant
✓ Tooth whitening
✓ Component of moth ball

Content for Q4 to be selected and filled in Mode of action and deficient affect

Brief euphoria, Lack of motivation, Love hormone, Motivation, Low self-esteem,
Feeling lonely, Anxiety, Feeling importance