

32/43

# Mid-Sem Exam

## CH-419: Consumer Chemistry

### Part -1

Name DEEYU SOLANKI

Roll no 200102028

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	hairloss ✓ ①
Dihydrotestosterone	cause of male baldness ✓ ①
Hair conditioners	Salicylic acid ✗
Keratolytic agent	Cetyl methyl ammonium chloride ✗
Tensile strength of tyres	<del>Sugarcane</del> butadiene cords ✓ ①
Sodium polyacrylate	Super absorbent ✓ ①
Wet indicator/pH indicator	Bromophenol blue ✓ ①
Spray mint	Cinnamond ✓ ①
Cannabinol	Marijuana ✓ ①
Glycolic acid	sugarcane juice ✓ ①
Apocrine glands	cause of body odour ✓ ①
Crystalline silica	Ruby ✓ ①
Blue diamond	Boron ✓ ①
Moth ball	1,4 dichlorobenzene ✓ ①
Potassium ion exchange	Grover glass ✓ ①
Aluminium	Rocket fuel ✓ ①
Tooth whitening	Hydrogen peroxide ✓ ①
Tyres	Styrene-butadiene ✓ ①
3M	Post it note ✓ ①
Purple K	potassium bicarbonate ✓ ①

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

Substances	Use
Zinc pyrithione	prevent hairloss ✗
Monoxidil	hair care product ✗
Xylitol	hair care product ✗
Triclosan	deodorant ✓ ①
Al <sub>2</sub> (OH) <sub>5</sub> Cl	Antiperspirant ingredient of antiperspirant
Picaridin	Mosquito repellent ✓ ①
1,4-Dichlorobenzene	moth balls component ✓ ①
Montmorillonite	Sugarless sweetener ✗
Carboxamide peroxide	Tooth whitening ✓ ①
Ammonium perchlorate	Desiccant ✗



Q3. What did they discover/contribute?

Name	Discovery
John Dunlop	Rubber tyres ✓ (1)
Dr. Spencer Silver	Pressure sensitive adhesive for <del>post-it notes</del> ✓ (1)
Art Fry	in 1974 gave to idea to use <del>adhesive</del> PSP in post-it notes ✓ (1)
Bette Nesmith Graham	
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	motivation	lack of motivation ✓ (1)
Oxytocin	love hormone	feeling lonely ✓ (1)
Serotonin	feeling important	low self esteem ✓ (1)
Endorphins	Brief euphoria	anxiety ✓ (1)

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

Drugs	Chemical test
Cocaine	Scott test ✓ (1)
Barbiturates	Wagenaar's test ✓ (1)
Lysergic acid	P-Aminobenzoic acid ✓ (1)
Forensic blood test	Phenolphthalene ✓ (1)

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

**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 bue
Cause of male boldness
Cinnamond
Marijuana
Rocket fuel
Sugar cane juice
Gorilla glass
Cause of body odour
Ruby
Boron
Hydrogen peroxide
1,4-Dichlorobenzene
Styrebe-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
Deodrant
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



Mid-Sem Exam  
CH-419: Consumer Chemistry

Part -II

Name DEEPA SOLANKI

Roll no 200102028

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 antacid?
- 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 pest (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 bald? 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  $\beta$ -hydroxyacids over  $\alpha$ -hydroxyacids?