

Maximum time 40 minutes:

Write your answer in the space provided

Question Q1.

Niacin

a) The two vitamins present in the Jaggery are : ~~PA, Riboflavin~~, Riboflavin, Triamine

b) What kind of emulsion is cold cream? Why do you feel a cooling sensation?

~~(oil + water)~~ The emulsion provides a cooling layer  
(water in oil), by absorbing heat & thus reducing temp.

c) What is thixotrophy property? Where does it find its application?

Thixotrophy property is ~~the use of water~~ the ability to  
cause a cooling sensation. Its applications is found in  
cold creams.

d) What is the advantage of using xylitol as a sugarless substitute in mouth fresheners

To prevent consumption of excess sugar & thus  
diabetes. It also gives the taste of sugar for better  
experience.

e) Give an example of a plasticizer? where does it find its application?

f) Name two bioactive transition metals present in Jaggery: ~~Zn, Mn~~

g) Name two chemicals that absorb UV light: ~~Minoxidil & Boot Stave~~

h) The acids that act as the best exfoliator is ~~Salicylic acid, Frenkic Acid~~

i) How black head over nose is best removed?

By using a salicylic acid containing facewash.

j) Among UVA, UVB which one penetrates deeper into the skin and why?

UVA penetrates deeper into the skin. This is because  
why?



## Question Q2. Draw the structure of the following

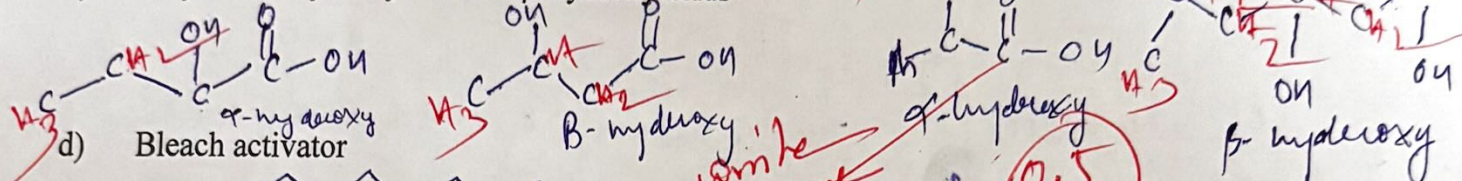
- a) What is the difference between lauryl sulfates and laureth sulfates?

The length of the carbon chains & the absence of Nitrogen in Laureth Sulfates

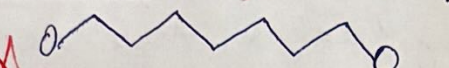
- b) Polar head group of the hair conditioner.

Polar head group

- c) Any two  $\alpha$ -hydroxy and two  $\beta$ -hydroxy acids



- d) Bleach activator



- e) Active component of bleach activators when it reacts with  $H_2O_2$



## Question Q3. Write the appropriate content in column 2 from the list at the bottom that best matches with the column 1.

| column-1                | column-2                            |
|-------------------------|-------------------------------------|
| Prostaglandins          | whiteness of cold cream             |
| Dihydrotestosterone     | Keratolytic action                  |
| Sebum                   | hairs natural moisturizer           |
| Tea tree oils           | treatment for hair loss             |
| Minoxidil               | sequestant                          |
| Zinc pyrithione         | component of sensitive toothpaste   |
| Phase inversion         | measure of UVC                      |
| Borax                   | cold cream                          |
| Occlusive barrier       | dye transfer inhibitors             |
| Boot star               | measure of UVB                      |
| Sodium tripolyphosphate | antifungal                          |
| Ferulic acid            | moisturizer                         |
| Periodontal disease     | bacterial infected gum              |
| Pyrrolidone             | antibacterial                       |
| Benzocoumarin           | antidandruff shampoo                |
| Salicylic acid          | prevents skin damage from pollution |
| SPF factor              | a measure of ratio of UVA vs UVB    |
| $KNO_3$                 | regulating hair growth              |

component of sensitive toothpaste, bacterial infected gum, keratolytic action, hairs natural moisturizer, measure of UVC, treatment for hair loss, the whiteness of cold cream, cold cream, antidandruff shampoo, measure of UVB, optical brightener, Anti bacterial, androgenetic alopecia, A measure of ratio of UVA vs UVB, antifungal, moisturizer, sequestrant, dye transfer inhibitors, prevents skin damage from pollution, regulating hair growth