

Paper / Subject Code: 14229 / Cosmetic Science

Cosmetic Science

Duration: 3 Hours

Total marks: 75

N.B.: 1. All questions are compulsory
2. Figures to the right indicate full marks.

- Q 1 Multiple Choice Questions (Answer all):** **20**
- 1 Which of the following best describes cosmeceuticals? **1**
- Purely cosmetic products
 - Pharmaceuticals for treating skin conditions
 - Products combining cosmetic and pharmaceutical properties
 - Herbal supplements for skin health
- 2 What characterizes quasi drugs? **1**
- They are strictly regulated by health authorities
 - They are not considered medications but have therapeutic effects
 - They have no therapeutic benefits
 - They are primarily used for recreational purposes
- 3 Which of the following is an example of a rheology modifier? **1**
- Vitamin C
 - Xanthan gum
 - Titanium dioxide
 - Parabens
- 4 Which of the following is a commonly used preservative in cosmetic products? **1**
- Sodium bicarbonate
 - Sodium benzoate
 - Coconut oil
 - Vitamin A
- 5 Which of the following is a property of non-ionic surfactants? **1**
- High foaming capacity
 - Strong acidity
 - Stability in a wide range of pH levels
 - Excellent disinfectant properties
- 6 Which of the following properties is typically associated with cold creams? **1**
- Heat-generating effects on the skin
 - Lightweight and quickly absorbed texture
 - Emollient and moisturizing properties
 - High alcohol content for a refreshing sensation

- 7 Which of the following surfactants is commonly used in the formulation of high-performance face washes for oily skin? 1
- a) Sodium lauryl sulfate
 - b) Cocamidopropyl betaine
 - c) Sodium cocoyl isethionate
 - d) Polysorbate 80
- 8 Ammonia is added to hair dyes 1
- a) as substrate for attachment of intermediates
 - b) as primary intermediate
 - c) as coupler
 - d) for diffusion of colour into the fibre
- 9 Tooth sensitivity is due to 1
- a) Exposure of dentin
 - b) Tartar formation
 - c) Plaque
 - d) Halitosis
- 10 Which of the following is an example of a physical sunscreen ingredient? 1
- a) Titanium dioxide
 - b) Avobenzone
 - c) Cinnamate
 - d) Octinoxate
- 11 Nimbidin is the major chemical constituent of 1
- a) Neem
 - b) Henna
 - c) Aloe vera
 - d) Turmeric
- 12 Total Viable count limit in cfu/g in skin creams is 1
- a) Not more than 1000
 - b) Not more than 1500
 - c) Not more than 2500
 - d) Not more than 3000

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- 13 Mexameter measures two major components of skin pigmentation: 1
- keratin and hemoglobin
 - melanin and globulin
 - eumelanin and globulin
 - melanin and hemoglobin
- 14 Corneometer is used as an analytical tool for _____ cosmetic product. 1
- Sun protection product
 - Moisturizing product
 - Anti-acne product
 - Tooth product
- 15 Following is the benefit of turmeric, except 1
- Protects from sun damage
 - Reduces risk of skin cancer
 - Helps treat psoriasis
 - Reduces hair fall
- 16 BIS of skin cream is: 1
- 6608:2004
 - 6608:2010
 - 6356:2004
 - 6356:2010
- 17 Ethylene glycol distearate is added to shampoos as _____ 1
- Primary surfactant
 - Opacifier
 - Preservative
 - Solubilizer
- 18 For the treatment of seborrheic dermatitis _____ is used as a rinse-off product. 1
- Salicylic acid 1.8-3%
 - Aluminium chlorohydroxide 5-6%
 - Zinc chloride 1.2-2%
 - Cyclomethicone 10%
- 19 _____ is used to treat hyperhidrosis. 1
- Selenium sulphide
 - Almond oil
 - Aluminium chlorhydrate
 - Salicylic acid
- 20 Wrinkle formation is due to 1
- Loss of melanin
 - Malassezia infection
 - Overactive Sebaceous glands
 - Fibrosis

- Q II Answer any Two questions: 20**
- 1 a) Explain the concept of cosmeceuticals and how they differ from traditional cosmetics. 5
Provide examples to illustrate their unique characteristics.
 - b) Write in short about preservatives used in cosmetics products. 5
 - 2 Discuss the chemistry and formulation of Paraphenylene diamine based hair dyes. 10
 - 3 a) Write a note on Clove in oral care cosmetic products. 5
 - b) Write the BIS specifications for non-fluoridated toothpaste. Discuss determination of foaming power test for toothpaste. 5

- Q III Answer any Seven questions: 35**
- 1. Explain the role of rheology modifiers in cosmetic formulations along with examples. 5
 - 2. Write the importance of occlusives in skincare formulations and their impact on skin barrier function. 5
 - 3. Differentiate between cold creams and vanishing creams. 5
 - 4. Discuss the formulation of a conditioning shampoo. 5
 - 5. How do you determine sun protection factor? 5
 - 6. Write a note on Henna in hair care cosmetic products. 5
 - 7. Differentiate between Sebumeter and Tewameter. 5
 - 8. Explain the causes and treatment of prickly heat. 5
 - 9. Write a note on the cosmetic problem of 'Blemishes'. 5
