

**Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University) Coimbatore-641 043
Bachelor's Degree Examination–November -2018
V Semester**

Class:III UG

Major :Chemistry

Time: 3 hours

Max.Marks: 100

11BCHC16/15BCHC 16–Applied Chemistry -I

Part-A

10x1=10

Choose the correct answer

1. Bees wax consist of
a. Cetylpalmitate b. Myricylcerotate c. ethylacetate d. Myricylpalmitate
2. The number of gms of iodine that will add to 100 gms of fat or oil is called as
a. iodine value b. R.M.value c. Henher value d. Saponification value
3. Which one of the following is an anionic detergent?
a. STPP b. Sodium stearate c. Lauryl ethoxylate d. SDS
4. Which one is medicated Soap?
a. Sodium Soap b. Potassium Soap c. Savlon, Life buoy d. Shaving Cream
5. The chemical formula of rust is
a. $Fe_2O_3 \cdot x H_2O$ b. $Fe(OH)_3$ c. $FeCl_3 \cdot H_2O$ d. F_2O
6. Coating of Tin over the Iron or steel article is called as
a. Galvanisation b. Anodisation c. Tinning d. Chromization
7. A Colloidal dispersion of solution of a cellulose derivative, resin, platicizer in solvent and diluents are called as
a. Paint b. Varnish c. Enamel d. Lacquers
8.paints are used in Marine constructions.
a. Luminescent b. Cellulose c. Antifouling d. Fire-retardant
9. Borosilicate glasses contain virtually only
a. Boron and Silica b. Boron and alumina c. Magnesia and Boron d. Boron and K_2O .
10. The molecular formula for Gypsum is
a. $CaSO_4 \cdot 5H_2O$ b. $CaSO_4 - \frac{1}{2} H_2O$ c. $CaSO_4 \cdot 10H_2O$ d. $CaSO_4 \cdot 2H_2O$

PartB

5X6=30

Answer the following

Answer should not exceed 400 words or two pages

11. a. What are Oils? How are they classified? Give suitable examples. Explain the properties of all oils.
(or)
11. b. What are Waxes? How are they classified? Give suitable examples. Mention their uses.
12. a. How is Shampoos manufactured on large scale?
(or)
12. b. How can you prepare neem soap, toilet soap and metal soaps?
13. a. Define Corrosion. Differentiate between chemical corrosion and electro chemical corrosion.
(or)
13. b. (i) Write a short note on metal cladding for corrosion prevention. (3)
(ii) Distinguish between tinning and galvanizing. (3)

14.a. What are the constituents of paints? Explain their functions.

(or)

14.b. Write a brief note on Enamels and Lacquers.

15.a. Give a method of small scale manufacture of Wax candles and ink.

(or)

15. b. What is Glass. Mention the important physical properties and characteristics of glass.

Part C

5x12=60

Answer the following

Answer should not exceed 800 words or four pages

16.a. How can you determine saponification value, iodine value, and Henher value of an oil?

(or)

16.b.(i) Describe the properties and uses of chinese insect Wax, Paraffins, bees wax and montan wax.

17.a.(i) Distinguish between Soaps and detergents. (3)

(ii) How is soap manufactured on large scale? (9)

(or)

17.b. What are detergents? How are they classified? Give any two examples for each type. Explain their properties and uses.

18.a.(i) State and explain pilling Bedworth rule. (5)

(ii) What are Corrosion inhibitors? Describe electroplating. (7)

(or)

18.b. Explain the various methods of protective coatings.

19.a. Give a detail account on special paints.

(or)

19. b. Write a note on Distempers and Varnishes.

20.a.(i) What are the constituents of Portland cement? (8+4)

How is it manufactured by wet process?

(ii) Explain the method of testing of Cement.

(or)

20.b.(i) What are Ceramics? List their general properties. (6)

(ii) Write a note on pyrex glass, safety glass and Crooke's glass. (6)
