

**Avinashilingam Institute for Home Science and Higher Education for Women
Coimbatore-641 043**

**Bachelor's Degree Examination – November 2017
V Semester**

**Class : III UG
Major : Chemistry**

**Time :3 Hours
Marks: 100**

15BCHC16 Applied Chemistry -I

**Part-A - 10 x 1=10
Choose the correct answer**

- 1 The example of a drying oil is
a) Linseed b) Castor c) olive d) rape seed
- 2 WIJS method measures
a) iodine value b) acid value c) ester value d) saponification
- 3 The fillers used in soap making is
a) caustic soda b) common salt c) borax d) talc
- 4 Soaps cannot be used in hard water due to the formation of ---salt of fatty acids.
a) calcium b) sodium c) potassium d) ammonium
- 5 During electrochemical corrosion, the corrosion occurs at
a) anode b) cathode c) both electrode d) electrolye
- 6 Galvanising is the process of coating iron with
a) Cu b) Zn c) Mg d) Ni
- 7 The pigment that gives white colour to the paints are
a) ultramarines b) titanium dioxide c) chromium oxide d) carbon black
- 8 The stabilizer that impart chemical resistant to the enamel is
a) soyabean oil b) kerosene c) titanium dioxide d) starch
- 9 The composition of plaster of paris is
a) $\text{CaSO}_4 \cdot 3\text{H}_2\text{O}$ b) $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ c) $\text{CaSO}_4 \cdot 1/2\text{H}_2\text{O}$ d) CaSO_4
- 10 The main constituent of glass is
a) CaO b) SiO_2 c) Al_2O_3 d) MgO

Part B

5 X 6=30

Answer the following

Answer should not exceed 400 words or two pages

- 11.a. What is hydrogenation of oils? Discuss the optimum condition for the process.
or
- 11.b. Discuss the properties of waxes.
- 12.a. Differentiate between soaps and detergents.
Or
- 12.b. What are essential raw materials required for soap making.
- 13.a. Explain mechanism of Wet corrosion with hydrogen evolution.
or
- 13.b. Differentiate between anodic inhibitors and cathodic inhibitors.
- 14.a. What are the requisites of a good paint?
or
- 14.b. List the constituents of Varnishes.
- 15.a. Give an account of different types of special glass.
or
- 15.b. Describe the manufacture of (i) safety matches (ii) agarbathis

Part C

5 x 12=60

Answer the following

Answer should not exceed 800 words or four pages

- 16.a. Differentiate between the following (i) oils and fats
(ii) drying oil and non-drying oil (iii) animal oil and vegetable oils
or
- 16.b. (i) Discuss the determination of R.M. value of oils.
- 17.a. Write briefly about cationic detergents.
or
- 17.b. Discuss the classification of soaps
- 18.a. Illustrate the different methods of application of metal coating to prevent corrosions.
or
- 18.b. Briefly explain the methods employed for cleansing articles before electro-deposition.
- 19.a. Explain briefly about the functions of the following constituents of paints like pigments, Vehicles, thinners and driers
or
- 19.b. Discuss briefly about heat resistant paints, fire-resistant paints and Distempers.
- 20.a. Write a short note on (i) porcelain (ii) ceramics (iii) Portland cement
or
- 20.b. Describe the raw materials and manufacturing processes of glass.