



Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956)
Re-accredited with 'A+' Grade by NAAC. Recognised by UGC Under Section 12B
Coimbatore - 641 043, Tamil Nadu, India

Bachelor's Degree Examination January 2021
V Semester

Class : III UG
Major : Chemistry

Time : 3 Hours
Max. Marks : 100

18BCHC16 Applied Chemistry - I

Part A
Choose the Correct Answer

10 x 1 = 10

- Sodium salt of higher fatty acid is called
a. wax
b. oil
c. soap
d. fat
- The presence of unsaturation in an oil or fat is determined by
a. acid value
b. Iodine value
c. Saponification number
d. alkali value
- Select the primary raw material involved in the manufacture of soap
a. oil
b. honey
c. wax
d. milk
- Choose the type of detergent used in the conventional domestic applications.
a. amphoteric
b. non-ionic
c. cationic
d. anionic
- Identify the natural process by which a metal gets deteriorated.
a. breaking
b. corrosion
c. pressing
d. crushing
- Select the metal commonly subjected to electroplating process
a. platinum
b. tin
c. silver
d. nickel
- Mark the primary constituent of paints among the following:
a. talc
b. clay
c. pigment
d. mica
- Which one of the following is not selected to colour?
a. varnish
b. paint
c. dye
d. lacquer
- Select the polymeric material from the following.
a. toothpaste
b. Safety matches
c. gum
d. chalk
- Which type of glass is used in a heating mantle?
a. pyrex glass
b. glass wool
c. sodalime glass
d. opal glass

Part B

5 x 6 = 30

Answer ALL questions

Each answer should not exceed 400 words or two pages

- 11.a. Discuss similarities and differences between oil and fat.
(or)
- 11.b. Explain properties of paraffin and synthetic wax.
- 12.a. How is glycerol recovered from the spent lye?
(or)
- 12.b. Justify the requirements of eco-friendly detergents.
- 13.a. Compare and Contrast between dry corrosion and wet corrosion.
(or)
- 13.b. Give a brief note on tinning and metal cladding.
- 14.a. Explain about primary constituents of paints.
(or)
- 14.b. Explain about constituents and uses of lacquers.
- 15.a. Explain steps involved in the manufacture of wax candles.
(or)
- 15.b. What are the important requisites of porcelain clay and its uses?

Part C

5 x 12 = 60

Answer ALL questions

Each answer should not exceed 800 words or four pages

- 16.a. Explain the process of determination of saponification number and iodine value of oil.
(or)
- 16.b. Summarize the classification of waxes and explain their properties.
- 17.a. Elaborate on the manufacturing process of soap.
(or)
- 17.b. Summarize the properties and uses of non-ionic and amphoteric detergents.
- 18.a. Explain the principle and mechanism of wet corrosion.
(or)
- 18.b. Elaborate the procedure adopted in the process of electroplating.
- 19.a. Summarize the role of plasticizers and anti skinning agents in paint process.
(or)
- 19.b. Summarize the properties and uses of varnishes and enamels.
- 20.a. Elaborate the process sequence involved in the manufacture of plaster of paris.
(or)
- 20.b. Elaborate the process sequence involved in the manufacture of Portland cement.
