

Sample Questions ESE ATKT Sep 2020

Applied Chemistry II

CBCGS

1. Corrosion of metals involves (1M)
(a) Physical reactions (b) Chemical reactions (c) electric reactions (d) None
2. Which of the following factors play vital role in corrosion process (1M)
(a) Temperature (b) Both Temp and Solute concentration
(c) Solute concentration (d) Galvanising
3. Passivity is due to (1M)
(a) Higher EMF (b) Lower EMF (c) Oxide film (d) Metal film
4. Passivity is not reason for inertness of the following (1M)
(a) Au (b) Al (c) Ti (d) Ni
5. When Pt and Co are electrically connected, which one gets corroded (2M)
(a) Pt (b) Co (c) None (d) Can't decide
6. Which of the following can be used for cathodic protection: (1M)
(a) Al (b) Cd (c) Cu (d) Either
- 7) The sign of ΔG predicts whether the formation of the products in a reaction is favoured. If the value is positive, the formation of the products in a reaction is (2M)
a) Favoured b) Favoured only at high temperature
c) Not Favoured d) Favoured only at low temperature
- 8) Cracking is the process of - (1M)
a) converting high molecular weight hydrocarbon to low molecular weight hydrocarbon
b) converting low molecular weight hydrocarbon to high molecular weight hydrocarbon
c) Converting fraction in to gaseous state
d) none of the above
- 9) Diesel is used as - (1M)
a) an illuminant b) lubricating purpose c) a fuel d) ointment
- 10) Liquid phase thermal cracking is carried out at - (1M)

- a) 420 – 550 °C & 15-100 kg/square cm b) 425 -540 °C & 1.5 kg/square cm
 c) 600 to 650 °C & 15-20 kg/square cm d) 550 to 570 °C & 15-20 kg/square cm

11) Biodiesel is formed by – (1M)

- a) transesterification of vegetable & animal oils c) saponification of vegetable & animal oils
 b) transesterification of vegetable & animal oils d) hydrogenation of vegetable & animal oils

12) Solders are the alloy of – (1M)

- a) Pb, Sn b) Cu,Mg c) Au and Ag d) neither of these

13. Sandwich panels are examples of – (1M)

- a) structural composites c) continuous aligned composites
 b) particle reinforced composites d) dis-continuous aligned composites

14) Composite material is a ----- phase material- (1M)

- a) one b) three c) two d) four

15) The starting material for synthesis of indigo by greener route is – (1M)

- a) benzene b) styrene c) aniline d) L – Tryptophan

16) An example of a safe solvent is – (1M)

- a) acetone b) benzene c) ether d) water

17) DDT is used as – (1M)

- a) herbicide b) pesticide c) germicide d) all of the above

18) Maleic anhydride can be prepared by the oxidation of – (1M)

- a) benzene b) butane c) butene d) all of the above

19) Function of a matrix phase is – (1M)

- a) to bind the reinforcing particle strongly b) to prevent propagation of cracks
 c) to act as a medium for distribution of applied load to dispersed phase d) all of the above

20) The objective of green chemistry is –(1M)

- a) to minimize environmental pollution c) to use safer chemicals
 b) to design harmless chemical processes d) all of the above

21) Percentage yield is – (1M)

- a) (actual yield / theoretical yield) x 100 c) Mol wt.
 b) (theoretical yield / actual yield) x 100 d) Atomic Weight

