Unit 2 - Week 0

Course outline

How does an NPTEL online course work?

Week 0

Quiz : Assignment 0

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

Week 8

DOWNLOAD VIDEOS

Assignment Solution

Live Interactive Session

Text Transcripts

Assignment 0

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-09-14, 23:59 IST.

1) The wavelength of a spectral line for an electronic transition is inversely related to: 1 point

(a) The nuclear charge of the atom
(b) Difference in energy of the energy levels involved in transition
(c) Number of electrons undergoing transition
(d) The velocity of electrons undergoing the transition

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
b

2) For the reaction: CO (g) + H_2O (g) $\rightleftharpoons$ CO_2 (g) + H_2 (g) 1 point

at a given temperature, the equilibrium amount of CO_2 (g) can be increased by,

(a) adding an inert gas
(b) decreasing the volume of the container
(c) increasing the amount of CO (g)
(d) adding a suitable catalyst

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
c

Write the common names of the following compounds.

3) $H_2C{=}CH_2$

Hint

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: String) Ethylene

1 point

4)

Hint

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: String) Methyl acrylate

1 point

5) $H_2N{-}(CH_2)_6{-}NH_2$

Hint

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: String) Hexamethylene diamine

1 point

6)

Hint

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: String) Terephatic acid

1 point

Writthe the names of the following functional groups.

7)

Hint

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: String) amide

1 point

8)

Hint

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: String) ester

1 point

9)

Hint

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: String) urethane

1 point

10)

Hint

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: String) carbonate

1 point

1 point

11) Which is the strongest base of the following compound?

(a) $C_6H_5NH_2$
(b) $C_6H_5CH_2NH_2$
(c) p-$NO_2C_6H_4NH_2$
(d) m-$NO_2C_6H_4NH_2$

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
b

1 point

12) The rate law for a reaction between the substances A and B is given by Rate = k[A]^m[B]^n. On doubling the concentration of A and halving the concentration of B, the ratio of the new rate to the earlier rate of the reaction will be as,

a. m+n
b. $2^{(m-n)}$
c. n-m
d. $1/2^{(m+n)}$

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
b

1 point

13) Which will be the most acidic in the given compounds?

(a) 1
(b) 2
(c) 3
(d) 4

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
d

1 point

14) Which of the following alkene is most reactive towards a cation?

a) $CH_2{=}CHMe$
b) $CH_2{=}CHPh$
c) $CH_2{=}CHCl$
d) $CH_2{=}CHCO_2Et$

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
b

1 point

15) Match the chemical structures on the right (i to iv) with the name of compounds on left (A to D)

A. Styrene (i)

B. Vinyl chloride (ii)

C. Ethylene oxide (iii)

D. Adipic acid (iv)

(a) A = iii, B = i, C = ii, D = iv
(b) A = ii, B = iv, C = i, D = iii
(c) A = i, B = iv, C = iii, D = ii
(d) A = iv, B = i, C = ii, D = iii

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
d

1 point

16) What is the name of the following compound

(a) α-Caprolactone
(b) ε-Caprolactone
(c) α-Caprolactam
(d) ε-Caprolactam

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
d

1 point

17) Rate of a chemical reaction NOT depends on

(e) Temperature
(f) Concentration of reactants
(g) Concentration of catalyst
(h) Value of equilibrium constant

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
d

1 point

18) Glass transition temperature is relevant for – liquid, crystalline solid, glass, gas?

(a) Liquid
(b) Crystalline solid
(c) Glassy solid
(d) Gas

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:

1 point

19) For a very dilute solution, the value of a colligative property depends on

(a) Molecular weight of the solute molecule
(b) the number of solute molecules
(c) the size of the solute molecules
(d) None of the above

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
b

1 point

20) What is the order of thermodynamic stability of the following rings

(a) i > ii > iii > iv
(b) iii > ii > i > iv
(c) iii> iv > ii > i
(d) ii > iii > i > iv

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
c