



RAA-007-001404

Seat No. _____

B. Sc. (Home Science) (Sem. IV) (CBCS) Examination

March - 2019

Basic And Applied Chemistry

(Old Course)

Faculty Code : 007

Subject Code : 001404

Time : 2 Hours]

[Total Marks : 50

1 નીચેનાં સમીકરણો પુરા કરો : 10

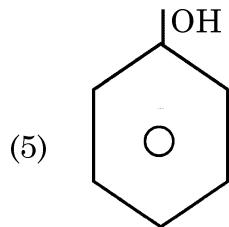
- (1) $\text{KOH} + \text{HCL} \rightarrow$
- (2) $\text{NaOH} + \text{FeCl}_3 \rightarrow$
- (3) $\text{AgNO}_3 + \text{KI} \rightarrow$
- (4) $\text{NaCl} + \text{AgNO}_3 \rightarrow$
- (5) $\text{FeSO}_4 + \text{NaOH} \rightarrow$
- (6) $\text{BaCl}_2 + \text{H}_2\text{SO}_4 \rightarrow$
- (7) $\text{NH}_3 + \text{H}_2\text{O} \rightarrow$
- (8) $\text{NH}_4\text{Cl} + \text{NaOH} \rightarrow$
- (9) $\text{CuSO}_4 + \text{H}_2\text{S} \rightarrow$
- (10) $\text{NaOH} + \text{HCl} \rightarrow$

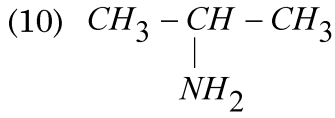
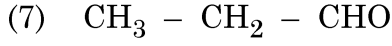
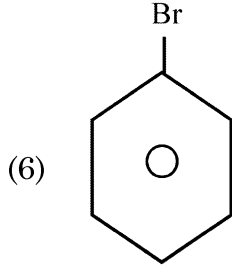
અથવા

1 એસિડ અને બેઈઝની જુદી જુદી વ્યાખ્યા આપી તેના ગુણધર્મો લખો. 10

2 નીચેનાના IUPAC નામ આપો : 10

- (1) $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{CH}_3$
- (2) $\text{CH}_3 - \text{CH}_2 - \text{COOH}$
- (3) $\text{CH}_3 - \text{CH}_2 - \text{CH} = \text{CH}_2$
- (4) $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{Cl}$





અથવા

2 સાબુની વ્યાખ્યા આપી, સાબુ બનાવવા માટેના પદાર્થો વર્ણવો. 10

3 ડીટરજન્ટની વ્યાખ્યા અને સમજૂતી આપી ડીટરજન્ટના ફાયદા અને ગેરફાયદા લખો 10

અથવા

3 ઔષધ એટલે શું ? કોઈ પણ બે ઔષધો વિશે માહિતી આપો. 10

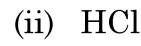
4 સમજાવો : સમઘટકતા. 10

અથવા

4 એસિડ - બેઈઝ તટસ્થીકરણ સમજાવો. 10

5 નીચેનામાંથી કોઈ પણ બે પ્રશ્નોના જવાબ લખો : 10

(1) નીચેના સંયોજનોના અણુભાર ગણો :

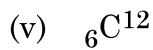
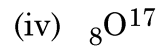
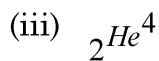
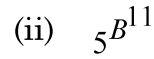
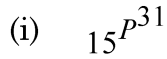


[પરમાણુભાર :

$\text{Mg} = 24, \text{C} = 12, \text{O} = 16, \text{H} = 1, \text{Cl} = 35.5, \text{K} = 39,$

$\text{Ni} = 57, \text{Ag} = 108, \text{N} = 14]$

(2) નીચેના તત્ત્વોની ઈલેક્ટ્રોન રચના આપો :



(3) સમાનધર્મી શ્રેણી સમજાવો.

(4) ટૂંકનોંધ લખો : સાબુના ઉપયોગો

ENGLISH VERSION

1 Complete the following equations. 10

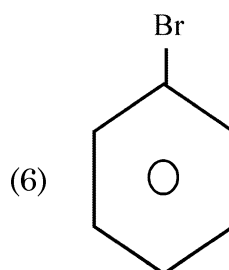
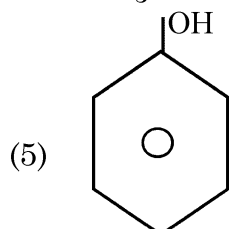
- (1) $\text{KOH} + \text{HCl} \rightarrow$
- (2) $\text{NaOH} + \text{FeCl}_3 \rightarrow$
- (3) $\text{AgNO}_3 + \text{KI} \rightarrow$
- (4) $\text{NaCl} + \text{AgNO}_3 \rightarrow$
- (5) $\text{FeSO}_4 + \text{NaOH} \rightarrow$
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- (7) $\text{NH}_3 + \text{H}_2\text{O} \rightarrow$
- (8) $\text{NH}_4\text{Cl} + \text{NaOH} \rightarrow$
- (9) $\text{CuSO}_4 + \text{H}_2\text{S} \rightarrow$
- (10) $\text{NaOH} + \text{HCl} \rightarrow$

OR

1 Give definition of Acid and Base and write their common characteristics. 10

2 Give IUPAC name of the following : 10

- (1) $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{CH}_3$
- (2) $\text{CH}_3 - \text{CH}_2 - \text{COOH}$
- (3) $\text{CH}_3 - \text{CH}_2 - \text{CH} = \text{CH}_2$
- (4) $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{Cl}$



- (7) $\text{CH}_3 - \text{CH}_2 - \text{CHO}$
- (8) $\text{CH}_3 - \text{O} - \text{CH}_3$
- (9) $\text{CH}_3 - \text{C} \equiv \text{C} - \text{CH}_3$
- (10) $\text{CH}_3 - \underset{\text{NH}_2}{\text{CH}} - \text{CH}_3$

OR

2 Give definition of soaps and describe the raw materials to make soap. 10

3 Give definition and explanation of detergent and write advantage and disadvantage of Detergent. 10

OR

3 What is Drug ? Give information regarding any two drugs. 10

4 Explain : Isomerism. 10

OR

4 Explain : Acid Base Neutralization. 10

5 Answer any two questions from the following : 10

(1) Calculate molecular weight of following :

(i) MgCO_3

(ii) HCl

(iii) KOH

(iv) NiCl_2

(v) AgNO_3

[Atomic weight :

$\text{Mg} = 24, \text{C} = 12, \text{O} = 16, \text{H} = 1, \text{Cl} = 35.5, \text{K} = 39,$

$\text{Ni} = 57, \text{Ag} = 108, \text{N} = 14]$

(2) Give electronic configuration of the following :

(i) ${}_{15}\text{P}^{31}$

(ii) ${}_{5}\text{B}^{11}$

(iii) ${}_{2}\text{He}^4$

(iv) ${}_{8}\text{O}^{17}$

(v) ${}_{6}\text{C}^{12}$

(3) Explain : Homologues series.

(4) Write short note : Uses of soaps.