

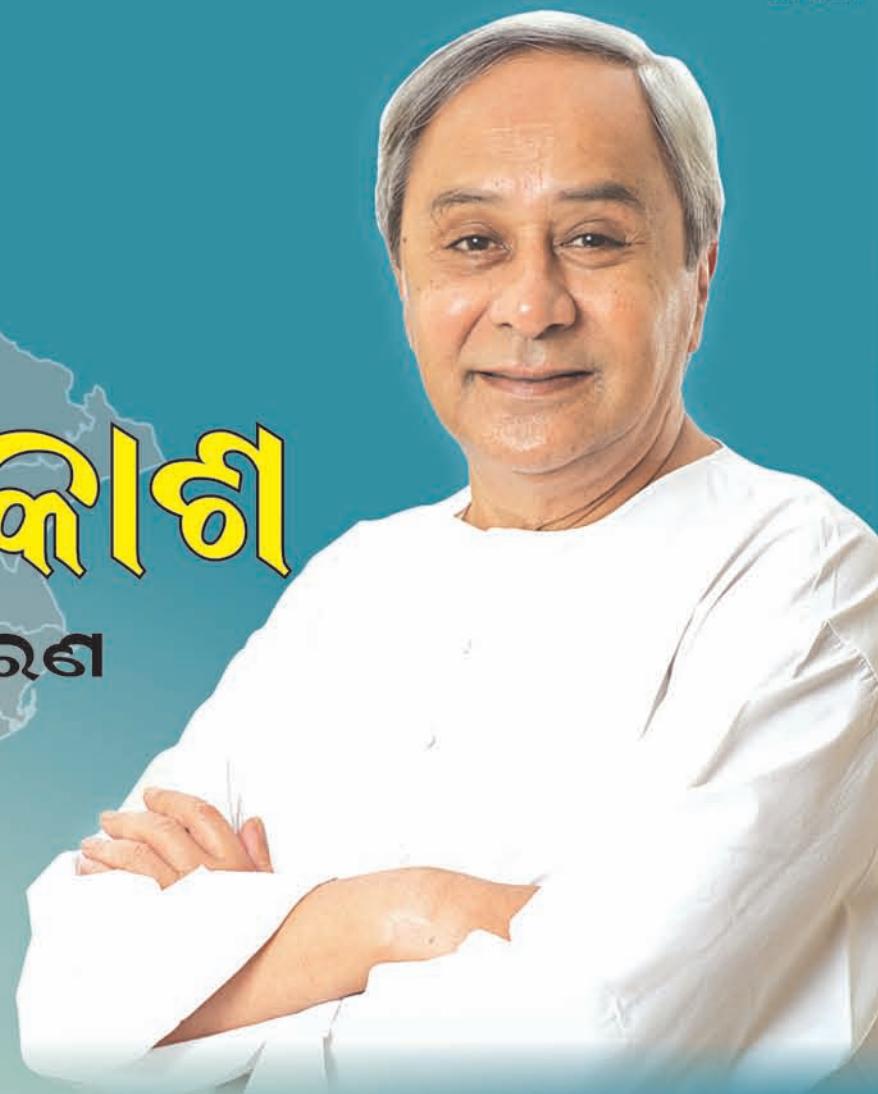


ଆମ ଗ୍ରୀ ଆମ ବିକାଶ

ନବୀନ ଓଡ଼ିଶାର ନୂତନ କିରଣ

ଏହି PEETHA

(Peoples' Empowerment - Enabling Transparency and Enhancing Accountability on Odisha Initiatives)



ଘରେ ଘରେ ଆଜି ବିଜୁଳି
ଓଡ଼ିଶା ଚଳାଣି ବେଳି



ଆମ ମୁଖ୍ୟମନ୍ତ୍ରୀ ଦେଇଥୁବା କଥା ଆଜି କାର୍ଯ୍ୟରେ ପରିଣତ ହୋଇଛି । ଓଡ଼ିଶାର ସବୁ ଘରକୁ ବିଜୁଳି ଶକ୍ତି ଯୋଗାଇବା କଥା ଆଜି ସତ ହୋଇଛି । ୯୪ ଲକ୍ଷରୁ ଅଧିକ ଘରକୁ ଆମେ ବିଦ୍ୟୁତ୍ ସଂଯୋଗ ପହଞ୍ଚାଇ ସାରିଛୁ । ଯଦି କୌଣସି ପରିବାର ବିଦ୍ୟୁତ୍ ସଂଯୋଗ ଏପାଏଁ ପାଇ ପାରି ନାହାନ୍ତି, ସେମାନେ ଏହି ଡିସେମ୍ବର ମାସର ୧୫ ରୁ ୨୦ ତାରିଖ ମଧ୍ୟରେ ପ୍ରତି ପଞ୍ଚାଷ୍ଟରେ ଅନୁଷ୍ଠାତ ହେଉଥିବା 'ପିଠା' (PEETHA) ଶିବିରରେ ପହଞ୍ଚି ବିନା ଜମାରେ ବିଦ୍ୟୁତ୍ ସଂଯୋଗ ପାଇଁ ଆବେଦନ କରନ୍ତୁ ।

ଶକ୍ତି ବିଭାଗ, ଓଡ଼ିଶା ସରକାର



Exam Mate



Mock Test Paper for Std X, XII CBSE Board, IIT - JEE Main & Advanced.

FOR ANSWERS VISIT : www.dharitri.com

MOCK TEST PAPER # 1 JEE (Main) (CHEMISTRY)

Time : 1 hour

Maximum Marks: 120

GENERAL INSTRUCTIONS

For each question you will be given 4 Marks if you have darkened only the bubble corresponding to the correct answer and zero mark if no bubble is darkened. In all other cases, minus one (-1) Marks (NEGATIVE MARKING) will be given.

SINGLE CORRECT ANSWER

- Which of the following method is(are) used to remove temporary hardness of water ?
 - Boiling hard water
 - Clark's method
 - Calgon's method

The correct choice is :

 - Only I
 - Both I and II
 - II and III
 - I, II and III
 - Metallic gold crystallizes in FCC lattice with edge-length of 4.070 Å . Closest distance between gold atoms is:
 - 2.035 Å
 - 8.140 Å
 - 2.878 Å
 - 1.357 Å
 - The ratio of the energy of the electron in ground state of hydrogen to that of the electron in first excited state of Be³⁺ is:
 - 1:4
 - 1:8
 - 1:16
 - 16:1
 - The correct order of increasing C–O bond length of CO, CO₃²⁻, CO₂ is:
 - CO₃²⁻ < CO₂ < CO
 - CO₂ < CO₃²⁻ < CO
 - CO < CO₂ < CO₃²⁻
 - H₂(g) + $\frac{1}{2}$ O₂(g) → H₂O(l)
 - B.E. (H–H) = x₁; B.E. (O = O) = x₂; B.E. (O–H) = x₃;
Latent heat of vaporization of water liquid into water vapour = x₄, then ΔH_f (heat of formation of liquid water) is
 - $x_1 + \frac{x_2}{2} - x_3 + x_4$
 - $2x_3 - x_1 - \frac{x_2}{2} - x_4$
 - $x_1 + \frac{x_2}{2} - 2x_3 - x_4$
 - $x_1 + \frac{x_2}{2} - 2x_3 + x_4$
 - Depression of freezing point of 0.01 molal aq. CH₃COOH solution is 0.022°C. 1 molal urea solution freezes at –2.0° C. Assuming molality equal to molarity, pH of CH₃COOH solution will be:
 - 2
 - 3
 - 3.2
 - 4.2
 - For reaction A → Product, [A]₀ = 2M. After 10 minutes reaction is 10% completed. If $\frac{d[A]}{dt} = -k[A]$ then T₅₀ is approximately: (log 3 = 0.48)
 - 0.693 min
 - 69.3 min
 - 66.0 min
 - 0.693 min
 - How many Faradays are required to reduce one mole of MnO₄⁻ to Mn²⁺?
 - 1
 - 2
 - 3
 - 5
 - The rate of a chemical reaction generally increases rapidly even for small temperature increase because of a rapid increase in the:
 - collision frequency
 - fraction of molecules with energies in excess of the activation energy
 - activation energy
 - average kinetic energy of molecules
 - Amount of gas adsorbed per g of adsorbent increases with pressure, but after certain limit is reached, adsorption becomes constant. It is where:
 - multilayers are formed
 - desorption takes place
 - temperature is increased
 - adsorption also starts
 - Bond-length of HCl is 1.25 Å (e = 4.8 × 10⁻¹⁰ e.s.u.). If $\mu = 1.02D$, then HCl is:
 - 100% ionic
 - 83% covalent
 - 50% covalent
 - 40% ionic
 - Ag₂S + NaCN → (A). (A) + Zn → (B). (B) is a metal. Hence, (A) and (B) are:
 - Na₂[Zn(CN)₄]₂Zn
 - Na[Ag(CN)₂]₂Ag
 - Na[Ag(CN)₄]₂Ag
 - Na₃[Ag(CN)₄]₂Ag
 - H₂O₂ can be obtained when following reacts with H₂SO₄ except with:
 - PbO₂
 - BaO₂
 - Na₂O₂
 - SrO₂
 - Molten sodium chloride conducts electricity due to the presence of:
 - Free electrons
 - Ions
 - Na atom
 - Cl atom
 - Which of the following compounds possess Lewis acid character?
 - BF₃
 - SiF₄
 - PF₅

Select the correct answer using the codes given below:

 - 1 alone
 - 1, 2 and 3
 - 2 and 3
 - 1 and 3
 - Match List I with List II and select the correct answer using the codes given below the lists:
- | List I (Metals) | List II (Ores) |
|-----------------|----------------|
| [P] Zinc | 1. Azurite |
| [Q] Tin | 2. Carnallite |
| [R] Copper | 3. Calamine |
| [S] Magnesium | 4. Cassiterite |

Codes:

(A) P → 3, Q → 4, R → 2, S → 1 (B) P → 3, Q → 4, R → 1, S → 2

(C) P → 4, Q → 1, R → 3, S → 2 (D) P → 4, Q → 3, R → 2, S → 1

17. Melting points of NaCl, NaBr, NaI and NaF will be in the order:

(A) NaI < NaBr < NaCl < NaF (B) NaF < NaCl < NaBr < NaI

(C) NaBr < NaF < NaCl < NaI (D) NaCl < NaI < NaF < NaBr

18. Which of the following compounds show optical isomerism? (en = ethylenediamine)

I. cis-[Co(NH₃)₄Cl₂]⁺ II. trans-[Co(en)₂Cl₂]⁺III. cis-[Co(en)₂Cl]⁺ IV. [Co(en)₃]³⁺

Select the correct answer using the codes given below:

(A) I and II (B) II and III (C) III and IV (D) I, III and IV

19. When H₂O₂ is added to an acidified solution of K₂Cr₂O₇:(A) solution turns green due to formation of Cr₂O₃(B) solution turns yellow due to formation of K₂CrO₄(C) a deep blue-violet coloured compound CrO(O₂)₂ is formed(D) solution gives green ppt of Cr(OH)₃

20. Consider the following compounds:

I. Sulphur dioxide II. Hydrogen peroxide III. Ozone

Among these compounds, those which can act as bleaching agents would include:

(A) I and III (B) II and III (C) I and II (D) I, II and III

21. In the detection of nitrogen, blue colour is due to the formation of Prussian blue. It is:

(A) NaFe^{III}[Fe^{II}(CN)₆] (B) NaFe^{II}[Fe^{III}(CN)₆](C) Na₄[Fe(CN)₆] (D) Na₃[Fe(CN)₆]22. Total number of isomers of C₄H₁₀O will be:

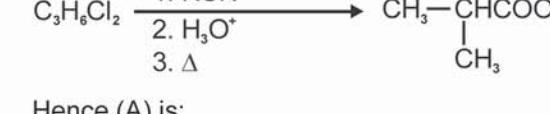
(A) 4 (B) 5 (C) 6 (D) 7

23. An alkene on ozonolysis yields only ethanal. There is an isomer of this which on ozonolysis yields:

(A) propanone and methanal (B) propanone and ethanal

(C) ethanal and methanal (D) only propanone

24. Consider the following reaction sequence

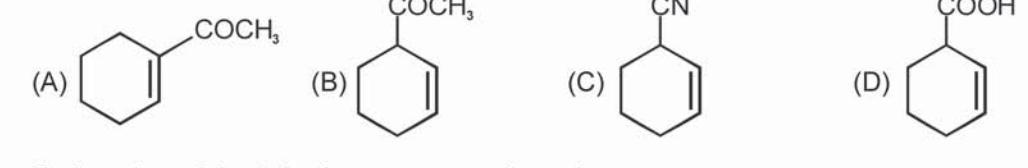
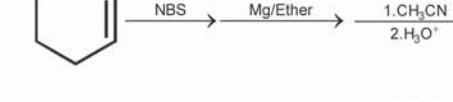


Hence (A) is:

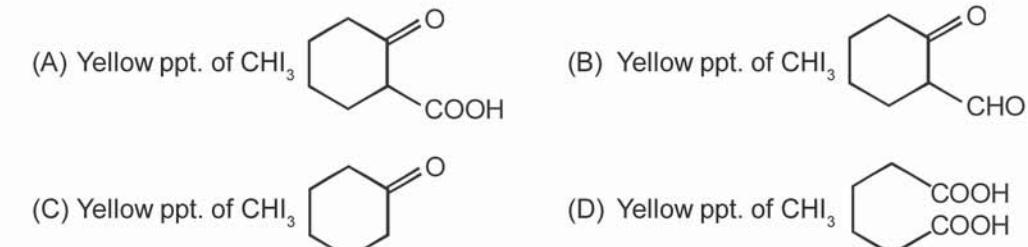
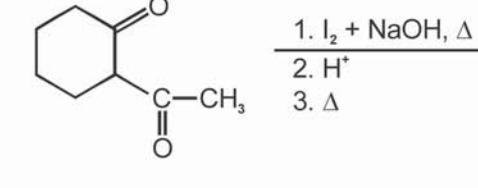
(A) 1, 1-Dichloro propane (B) 1, 2-Dichloro propane

(C) 2, 2-Dichloro propane (D) 1, 3-Dichloro propane

25. End product of the following sequence of reaction is:



26. End product of the following sequence of reaction are



27. Which of the following compound has maximum percentage of Cl?

(A) PVC (B) BHC (C) Neoprene (D) DDT

28. Which of the following is not a pyrimidine base?

(A) Thymine (B) Guanine (C) Cytosine (D) Uracil

29. On hydrolysis, which of the following carbohydrates gives only glucose?

(A) Sucrose (B) Lactose (C) Maltose (D) Galactose

30. Which of the following pairs of isomers and types of isomerism are correctly matched?

I. [Co(NH₃)₅(NO₂)] and [Co(NH₃)₅(ONO)]Cl₂ linkage.II. [Cu(NH₃)₄][PtCl₄] and [Pt(NH₃)₄][CuCl₄]..... Coordination.III. [Pt(NH₃)₄Cl₂]Br₂ and [Pt(NH₃)₄Br₂]Cl₂..... ionization.

Select the correct answer using the codes given below:

(A) II and III (B) I, II and III (C) I and III (D) I and II

For Answers visit: www.dharitri.com

ବ୍ୟାଙ୍କର ପୂର୍ବତନ ସମାଦକଙ୍କୁ ଦେହବର୍ଷ ଜେଳ୍

ବାଲେଶ୍ୱର ଅଧୀକ୍ଷ, ୧୮୧୯

ଲାଞ୍ଚ ମାମଲା

ଏକ ଲାଞ୍ଚ ମାମଲାର ବିଭାଗର କରି
ବାଲେଶ୍ୱର ଜିଲ୍ଲା ଭିଲାକ୍ତୁ ବିଭାଗର
ସମ୍ବନ୍ଧରେ ଜିଲ୍ଲା କୋ-ଅପରେଟିଭ
ଏପ୍ରିକଲରେ ଏବଂ କୁଳାଳ
ତେଜେଲେଖମେଣ୍ଡ ବ୍ୟାଙ୍କରେ ଜମି
ବନ୍ଧକ ରଖି ବାକ୍ଷ ରଣ କରିଥିଲେ।
ରଣ ପରିଶୋଧ ପରେ ବନ୍ଧ ଜମିର
ପଞ୍ଜ ଫେରାଇବା ପାଇଁ ଭାଲୁନାମ
କାର୍ଯ୍ୟର ବାକ୍ଷ ରଖିବାର ସମାଦକ ହାତିବନ୍ଧ
ବାଶ ତାକୁ ୧୪ଶହ ଟଙ୍କା ଲାଞ୍ଚ
ମାରିଥିଲେ। ଏ ସମର୍କରେ ସମାର
ଗ୍ରାମର ସମାର କୁଳାକ୍ତୁ
ବିଭାଗର କୁଳାକ୍ତୁ ରାଖିରେ
କୁଳାକ୍ତୁ ରାଖିରେ।

ଗ୍ରାନ୍ତିର ଧକ୍କାରେ ଜଣେ ମୃତ୍ୟୁ

ଯଶପୁର, ୧୮୧୯
(ତ.ଏନ.୧.)

ଅନ୍ୟ ଜଣେ ଶ୍ରମିକ
ତକାବେତା ଗ୍ରାମର
ତାକୁର ମାଖାକ୍ତୁ ବୁଝିବା
ଅବସ୍ଥାରେ ଉପର
କରି ଯଶପୁର ଓ ପରେ
ନିକରଣ ଘୋମବାର
କରିଥିଲା। ପାଇଁ ପଞ୍ଜାକ୍ତୁ
ଶ୍ରମିକଙ୍କ ମୃତ୍ୟୁ ହୋଇଛି।
ମୃତକ ହେଲେ
ବାଲୁମୁଦ୍ରା ଗ୍ରାମର
(ନେମାରୁ ହୋଇଥିଲା)।



ନାବାଲିକା ଅପହରଣ
ଅଭିଯୋଗ: ୩ ଗିରିପା

ବରିପଦା ଅଧିକ୍ଷ, ୧୮୧୯
ବାରିପଦା ସହରର ଜଣେ ନାବାଲିକାରୁ
ଅପହରଣ କରାଯାଇଥିବା ବାରିପଦା
ଗାନ୍ଧି ଥାନରେ ଅଭିଯୋଗ
ହୋଇଥିଲା। ଯୋଲିଯ ଏ ଜଣ୍କୁ ରିପା
କରିଛି। ଯେମାନେ ହେଲେ ସତମା ରଣ,
ଦୋହେଲ ଖାନ ଓ ପେନ ଥିବା ଏ କେବେ
ଏକ ମାମଲା ଭିଲୁ କରାଯାଇଥିଲା ।

୪୦ ବସ୍ତ୍ରା କୋଇଲା ଜବତ, ୨ କୋଟି ଟାଳାଣ

ପ୍ରମ୍ରତ୍ତ, ୧୮୧୯(ତ.ଏନ.୧.)

ବାମୁଦେବପୁର କୁଳ ଅଧୀନ
ନାୟକାରୀତିହୀନ ପୋଲିସ ସୋମବାର
ବିକର୍ଷିତ ରାତିରେ ଏକ କୋରା କୋଇଲା
ବୋରେ ପିକଅପକୁ ଜବତ କରିଛି।

ପୋଲିସ ସୂଚନା ଅନ୍ୟାୟୀ ରାତ୍ରିକାଳୀନ
ବେଶ୍ୱର କାରୀକାରୀତିହୀନ ପୋଲିସ ସୋମବାର
କୁମାର ନାୟକ ଓ ଏଥାଇ ପ୍ରମୋଦ
କୁମାର ଦେହରୀ ଯାଇଥିଲେ। ଧାମରା
ଅଞ୍ଚକୁ ଏକ କୋଇଲା ବୋରେ ଗାତ୍ର
ଅଧୀନ ପ୍ରୟୋଗ ମହାଲିକ ଗାତ୍ର ଭାଇତର
ଓ ବାଶତା ଆନା ଅଧାନ ମୁଖ୍ୟଶୋକ
ଗ୍ରାମର ପୁଷ୍ପାଶ୍ଵ ମଳିକ(ସହଯୋଗୀ)ଙ୍କୁ
ଚିରଫେ କରିଥିଲେ। ଏନେଇ ଆନାରେ
ଏକ ମାମଲା(ନେ.୧୭୭/୧୮)
ଭିଲୁ ହେବା ସହ ଅଭିଯୁକ୍ତ ଦୟକୁ
ମଙ୍ଗଳବାର କୋଟି ଟାଳାଣ କରାଯାଇଛି

Mahindra
Rise.

ମହିନ୍ଦ୍ରା ଆୟୋଜନ କରୁଛି

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