

02-12-21

2021

Roll No: _____

INTERMEDIATE PART-II (12th CLASS) (SPECIAL EXAMINATION)
CHEMISTRY PAPER-II

TIME ALLOWED: 2.40 Hours

MAXIMUM MARKS: 68

SUBJECTIVE

NOTE: Write same question number and its part number on answer book,
as given in the question paper.

SECTION-I

2. Attempt any eight parts.

8 × 2 = 16

- How do you justify that BeO is amphoteric in nature?
- Why is a negative ion always bigger than its neutral atom?
- Why the group IA are called alkali metals and the group IIA are called alkaline earth metals?
- Write down formulas of the minerals (a) Dolomite (b) Asbestos
- What is the action of an aqueous solution of borax on litmus?
- How will you convert boric acid into borax? Give two reactions.
- Give two uses of borax.
- How does nitrogen differ from other elements of its group?
- Why does Aqua Regia dissolve gold and platinum?
- Why Phosphatic fertilizers are needed in the growth of plants?
- Give four essential qualities of a good fertilizer.
- What is Clinker? Why gypsum is used in cement industries?

3. Attempt any eight parts.

8 × 2 = 16

- Write any two chemical properties of Bleaching powder.
- Compare the properties of HF with other halogen acids.
- Write reaction of chlorine with cold and hot $NaOH$.
- Define paramagnetic and diamagnetic behaviour.
- Define interstitial compounds.
- Nitro group is meta-directing group. Explain with one example.
- What is Wurtz-Fittig reaction? Give example.
- Give laboratory preparation of acetaldehyde.
- Write mechanism of addition of sodium bisulphite to a carbonyl compound.
- Give mechanism of the formation of acetamide from acetic acid.
- Give preparation of carboxylic acid from alkenes.
- How is acetic acid prepared from acetylene? Give reaction.

4. Attempt any six parts.

6 × 2 = 12

- Give names and structural formulas of two Heterocyclic compounds.
- Define functional group. Give formulas of two oxygen containing functional groups.
- What is Clemmensen Reduction?
- Why Alkenes are called Olefins?
- What is Raney-Nickel? How is it prepared?
- Give structural formulas of 2-Halobutane & isobutyl chloride
- What are Nucleophiles? Give two examples.
- Write uses of Methanol and Ethanol (Two for each case).
- Briefly describe the acidic behaviour of phenol.

SECTION-II**NOTE:** Attempt any three questions.

8 × 3 = 24

- Write similarities and dissimilarities of hydrogen with Alkali metals. 4
 - Explain the preparation of sodium hydroxide ($NaOH$) by the diaphragm cell. 4
- Write balanced equations for the reactions of conc. HNO_3 with
 - Cu
 - As
 - P
 - Sn
4
 - What is corrosion? Explain electrochemical theory of corrosion. 4
- What is orbital hybridization? Explain sp^3 hybridization of carbon. 4
 - How does acetaldehyde react with
 - CH_3CH_2MgBr
 - $NaHSO_3$
 - NH_2-OH
 - N_2H_4
4
- Write note on acidic nature of Alkynes. 4
 - Differentiate between E_1 and E_2 reactions. 4
- Discuss the stability of benzene by comparing it with hypothetical compound 1, 3, 5-cyclohexatriene. 4
 - How will you convert (i) Methanol into Ethanol (ii) Ethanol into Methanol 4

CHEMISTRY PAPER-II

TIME ALLOWED: 20 Minutes

MAXIMUM MARKS: 17

OBJECTIVE

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Q.No.1

- (1) The element having highest melting and boiling point, among the given is:
(A) Carbon (B) Lithium (C) Boron (D) Beryllium
- (2) Which ion will have maximum value of heat of hydration?
(A) Na^{+1} (B) Cs^{+1} (C) Ba^{+2} (D) Mg^{+2}
- (3) Which metal is used in thermite process because of its reactivity?
(A) Iron (B) Copper (C) Aluminium (D) Zinc
- (4) When conc. H_2SO_4 is added in solid oxalic acid, it gives all except:
(A) CO_2 (B) CO (C) H_2O (D) Carbon
- (5) Which halogen causes burns that heal slowly?
(A) F_2 (B) Cl_2 (C) Br_2 (D) I_2
- (6) Astatine is rare halogen. It is radioactive and its most stable isotope has a half life of only:
(A) 8.3 Seconds (B) 8.3 Minutes (C) 8.3 Hours (D) 8.3 Years
- (7) Transition element having highest melting point is:
(A) Sc (B) Zn (C) Cr (D) V
- (8) Select the compound having octane number of 100:
(A) n -Heptane (B) n -Octane (C) n -Hexane (D) Iso-Octane
- (9) Which hydrocarbon among the given is more reactive?
(A) Methane (B) Ethane (C) Ethene (D) Ethyne
- (10) The benzene molecule contains:
(A) Three double bonds (B) Two double bonds (C) One double bond
(D) De-localized Pi -electron charge
- (11) Which one of the following is not Nucleophile?
(A) H_2O (B) BF_3 (C) H_2S (D) NH_3
- (12) Denaturing of alcohol can be done by adding all except:
(A) 10% Methanol (B) Acetone (C) Water (D) Pyridine
- (13) Carbonyl compounds give the reactions of type known as:
(A) Nucleophilic substitution reactions (B) Electrophilic substitution reactions
(C) Nucleophilic addition reactions (D) Electrophilic addition reactions
- (14) The carbon atom of carbonyl group is:
(A) sp -hybridized (B) sp^2 -hybridized (C) sp^3 -hybridized (D) dsp^2 -hybridized
- (15) Which ester gives orange flavour?
(A) Amyl acetate (B) Octyl acetate (C) Benzyl acetate (D) Ethyl butyrate
- (16) Which one is not derivative of acetic acid?
(A) Acid chloride (B) Acid anhydride (C) Acid amide (D) Acetone
- (17) Which one is not calcareous raw material for manufacturing of cement?
(A) Marble (B) Clay (C) Limestone (D) Marine shell

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BOARD OF INTERMEDIATE AND SECONDARY EDUCATION, MULTAN.
OBJECTIVE KEY FOR INTERMEDIATE ANNUAL EXAMINATION, 2021

Special

Name of Subject: Chemistry Session: Special Exam - 2021

Q.Nos	Paper Code 4481	Paper Code 4483	Paper Code 4485	Paper Code 4487
1	A	B	D	D
2	D	B	C	C
3	C	D	D	C
4	D	B	B	D
5	C	A	C	D
6	C	D	C	C
7	D	C	B	D
8	D	D	B	B
9	C	C	D	C
10	D	C	B	C
11	B	D	A	B
12	C	D	D	B
13	C	C	C	D
14	B	D	D	B
15	B	B	C	A
16	D	C	C	D
17	B	C	D	C
18				
19				
20				

سرٹیفکیٹ بابت تصحیح سوالیہ پرچہ مارکنگ Key

ہم نے مضمون کیمسٹری پرچہ II گروپ انٹرمیڈیٹ پارٹ سیکنڈ سال امتحان 2021ء کا سوالیہ پرچہ انشائیہ و معروضی (Subjective & Objective) کو نظر عمیق چیک کر لیا ہے یہ پرچہ ALP Syllabus کے عین مطابق Set کیا گیا ہے۔ اس سوالیہ پرچہ میں کسی قسم کی کوئی غلطی نہ ہے۔ ہم نے سوالیہ پرچہ کا اردو اور انگریزی Version بھی چیک کر لیا ہے۔ یہ Version آپس میں مطابقت رکھتے ہیں۔ نیز اس پرچہ کی معروضی (MCQs) Key کی بابت تصدیق کی جاتی ہے کہ اس میں بھی کسی قسم کی کوئی غلطی نہ ہے۔ مزید یہ کہ ہم نے Key بنانے سے متعلق دفتر کی جانب سے تیار کردہ ہدایات وصول کر کے ان کا بغور مطالعہ کر لیا ہے اور ان کی روشنی میں Key بنائی ہے۔ نیز سب ایگزامینرز کیلئے تفصیلی مارکنگ ہدایات / مارکنگ سکیم / Rubrics بھی تیار کر دی گئی ہیں۔

Prepared & Checked By:

Dated: 04-12-21

S.#	Name	Designation	Institution	Mobile No	Signature
1	Shauqz Mehmood	A.P	G.G.C. of Science Multan	03327082646	<i>[Signature]</i>
2	Nadia Arif	AP	Govt. Graduate College of Science	03017189257	<i>[Signature]</i>
3	SHAHNAZ AGHA	AP	Govt. Associate College (w) Basan Road Multan.	03017411047	<i>[Signature]</i> Agha.

Re-Checked By ہم نے درج بالا سوالیہ پرچہ (انشائیہ + معروضی) معروضی "Key" اور ہدایات کے حوالہ سے مکمل طور پر تلی کر لی ہے۔ کسی قسم کی کوئی غلطی نہ ہے۔

1	Dr. M. Tariq Shehzad	AP	Emerson University Multan	0334607089	<i>[Signature]</i>
2	M. AWAIS SAEED	A.P.	Govt. Alauda Hussain Islamia Associate College Multan	0333-6143457	<i>[Signature]</i>

04/12/21 تاریخ