

BOARD OF INTERMEDIATE AND SECONDARY EDUCATION, MULTAN.
OBJECTIVE KEY FOR INTERMEDIATE 2nd ANNUAL EXAMINATION, 2025

Name of Subject: CHEMISTRY (Part - II) Group: I

Q. Nos	Paper Code	Correct Answer	Paper Code	Correct Answer	Paper Code	Correct Answer	Paper Code	Correct Answer
	4481		4483		4485		4487	
1	D	All the metals form acidic...	A	Propanoic acid	D	Polystyrene	B	HClO ₄
2	A	H ₂	C	Urease	A	Poplar	D	Zn
3	B	Ca ₂ B ₆ O ₁₁ ·5H ₂ O	B	Sec. Alcohol	D	less than 5	A	No hydrogen atom
4	C	V ₂ O ₅	C	Phthalic acid	B	100000	C	chloroprene
5	B	HClO ₄	D	Polystyrene	D	All the metals form acidic...	B	NO ₂ ⁺
6	D	Zn	A	Poplar	A	H ₂	A	Propanoic acid
7	A	No hydrogen atom	D	less than 5	B	Ca ₂ B ₆ O ₁₁ ·5H ₂ O	C	Urease
8	C	chloroprene	B	100000	C	V ₂ O ₅	B	Sec. Alcohol
9	B	NO ₂ ⁺	D	All the metals form acidic...	B	HClO ₄	C	Phthalic acid
10	A	Propanoic acid	A	H ₂	D	Zn	D	Polystyrene
11	C	Urease	B	Ca ₂ B ₆ O ₁₁ ·5H ₂ O	A	No hydrogen atom	A	Poplar
12	B	Sec. Alcohol	C	V ₂ O ₅	C	chloroprene	D	less than 5
13	C	Phthalic acid	B	HClO ₄	B	NO ₂ ⁺	B	100000
14	D	Polystyrene	D	Zn	A	Propanoic acid	D	All the metals form acidic...
15	A	Poplar	A	No hydrogen atom	C	Urease	A	H ₂
16	D	less than 5	C	chloroprene	B	Sec. Alcohol	B	Ca ₂ B ₆ O ₁₁ ·5H ₂ O
17	B	100000	B	NO ₂ ⁺	C	Phthalic acid	C	V ₂ O ₅
18								
19								
20								
Cross Check	A	B	C	D	A	B	C	D
Total	4	5	4	4	4	5	4	4

Key ششکیت بابت صحیح سوالیہ پرچہ مارکنگ

ہم نے مضمون کیمیاسٹری پرچہ سینڈرائیز گروپ I انٹرمیڈیٹ دوسرا سالانہ امتحان 2025 کا سوالیہ پرچہ انتہائیہ و معروضی (Subjective & Objective) کو بنظر عمیق چیک کر لیا ہے یہ پرچہ 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 اسکیم / Rubrics بھی تیار کر دی گئی ہیں۔

Prepared & Checked By:

Dated: 06-11-25

S.#	Name	Designation	Institution	Mobile No	Signature
1	M. AWAIS SAEED	A.P.	Govt; Alauddin Hussain Islamia Graduate College Multan	0333-6143457	
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3	Ms Shabnaz Agha	A.P.	Govt G. College (W) Bhasan Pora	0301744047	Shabnaz Agha
4					
5					

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

1	Dr Nadia Arif	A.P.	Govt. Graduate College Science Multan	03007189257	
2	Dr. M. Tariq / Shehzad	Associate Professor	Govt. Graduate College Civil Lines, Multan	0334-6070904	

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07-11-2025 تاریخ

INTERMEDIATE PART-II (12 th Class)		2025 (2 nd -A)	Roll No:	
CHEMISTRY PAPER-II				
TIME ALLOWED: 2.40 Hours		SUBJECTIVE	MAXIMUM MARKS: 68	
NOTE: Write same question number and its parts number on answer book, as given in the question paper.				
SECTION-I				
2. Attempt any eight parts.				
(i)	Non metallic character decreases from top to bottom in a group, give reason.		8 × 2 = 16	
(ii)	Define hydration energy, which factors affect it?	(iii)	Write the formula of Epsom salt and Soap stone.	
(iv)	Complete the equation. $2Na + C_2H_2 \rightarrow$	(v)	Define functional group and write their importance.	
(vi)	How crude oil was formed in nature?			
(vii)	Alkynes are less reactive than alkenes and more reactive than alkanes, give reason.			
(viii)	What is the importance of IUPAC Nomenclature?			
(ix)	Define monocyclic aromatic hydrocarbons and give one example.			
(x)	Draw structure of hydroxy benzoic acid and o-xylene.			
(xi)	Prepare 1-Propanol using grignard reagent.	(xii)	Define β - Elimination reactions with one example.	
3. Attempt any eight parts.				
(i)	Write down any two uses of Lead compounds in paints.		8 × 2 = 16	
(ii)	Why are liquid silicones preferred over ordinary organic lubricants?			
(iii)	Give any two reactions of H_2SO_4 which show it to be a dehydrating agent.			
(iv)	What is the principle of contact process for the manufacture of sulphuric acid?			
(v)	How ethers are prepared by Williamson's synthesis?			
(vi)	Convert phenol into phenyl acetate.	(vii)	Give the mechanism of addition of HCN to acetone.	
(viii)	Which reaction is used for the separation and purification of carbonyl compounds from alcohols? Give its mechanism.			
(ix)	What is glacial acetic acid?	(x)	Draw a dimer of a carboxylic acid formed in non-polar solvents.	
(xi)	Mention any four points of importance of enzymes.		1+1	
(xii)	How polystyrene is obtained by the polymerization of styrene? Give its uses.		1+1	
4. Attempt any six parts.				
(i)	Why HF is weaker acid than HCl?	(ii)	What is disproportionation reaction? Give an example	
(iii)	What are Ligands? Give types of Ligands.	(iv)	What are Chelates? Give an example.	
(v)	Write down four essential qualities of good fertilizer.		(vi)	What is the role of Nitrogen in plant growth?
(vii)	How detergents are threat to aquatic life?	(viii)	What are the harmful effects of chlorinated water?	
(ix)	How Leather tanneries pollute the water?			
SECTION-II				
NOTE: Attempt any three questions.				
5.(a)	Define Hydrides. Give their classification and properties.		3 × 8 = 24	
(b)	Describe the commercial preparation of Sodium by Down's cell with diagram.		1+1+2=4	
6.(a)	What is orbital hybridization? Explain sp^3 - hybridization with reference to Methane.		3+1=4	
(b)	How benzene reacts with (i) O_2 in the presence of V_2O_5 (ii) Br_2 (iii) H_2		1+3=4	
7.(a)	Describe the oxidation reactions of alkene in detail.		2+1+1=4	
(b)	Explain Aldol condensation reaction in detail with example.		4	
8.(a)	How Ethanol is prepared from molasses and starch?		4	
(b)	Write down the reaction of Acetic acid with $SOCl_2$. Also write mechanism for this reaction.		2+2=4	
9.(a)	Give commercial uses of Flourine, Chlorine and their compounds. (any four)		1+3=4	
(b)	Give composition of wrought iron. How is wrought iron manufactured from cast iron?		4	

23-2025(2nd-A)-

(MULTAN)

Paper Code Number: 4481		2025 (2 nd -A) INTERMEDIATE PART-II (12 th Class)		Roll No: _____	
CHEMISTRY PAPER-II					
TIME ALLOWED: 20 Minutes			OBJECTIVE		MAXIMUM MARKS: 17
Q.No.1	You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number, on bubble sheet. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question.				
S.#	QUESTIONS	A	B	C	D
1	Which statement is incorrect?	All the metals are good conductor of electricity	All the metals are good conductor of heat	All the metals form positive ions	All the metals form acidic oxides
2	The Element which is deposited at cathode during the electrolysis of brine in diaphragm cell?	H ₂	Na	Cl ₂	O ₂
3	Chemical composition of colemanite is:	Ca B ₄ O ₇ . 4H ₂ O	Ca ₂ B ₆ O ₁₁ . 5H ₂ O	Na ₂ B ₄ O ₇ . 4H ₂ O	CaNaB ₅ O ₉ . 8H ₂ O
4	Which catalyst is used in contact process?	SO ₃	Fe ₂ O ₃	V ₂ O ₅	Ag ₂ O
5	Which is the strongest acid?	HClO ₃	HClO ₄	HClO	HClO ₂
6	Which is a non-typical transition element?	Cr	Mn	Fe	Zn
7	In t-butyl alcohol, the tertiary carbon is bonded to:	No hydrogen atom	Three hydrogen atoms	One hydrogen atom	Two hydrogen atoms
8	Synthetic rubber is made by polymerization of:	Chloroform	Acetylene	Chloroprene	Divinyl acetylene
9	During nitration of benzene, the active nitrating agent is:	NO ₃	NO ₂ ⁺	NO ₂	HNO ₃
10	When CO ₂ is made to react with ethyl magnesium iodide, followed by acid hydrolysis, the product formed is:	Propanoic acid	Propane	Propanal	Propanol
11	Which enzyme is not involved in fermentation of starch?	Diastase	Zymase	Urease	Invertase
12	Ketones are prepared by oxidation of:	Primary alcohol	Secondary alcohol	Tertiary alcohol	all of these
13	Which is not a fatty acid?	Propanoic acid	Acetic acid	Phthalic acid	Butanoic acid
14	Which of these polymers is an addition polymers?	Nylon-6,6	Epoxy resin	Terylene	Polystyrene
15	Which woody raw material is used for the manufacture of paper pulp?	Poplar	Bagasse	Cotton	Rice straw
16	The pH range of the acid rain is:	7 – 6.5	6.5 – 6	6 – 5.6	Less than 5
17	A single chloride free radical can destroy how many ozone molecules?	100	100,000	10,000	10

Paper Code	2025 (2 nd -A)	Roll No: _____
Number: 4483	INTERMEDIATE PART-II (12 th Class)	

CHEMISTRY PAPER-II

TIME ALLOWED: 20 Minutes

OBJECTIVE

MAXIMUM MARKS: 17

Q.No.1 You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number, on bubble sheet. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question.

S.#	QUESTIONS	A	B	C	D
1	When CO_2 is made to react with ethyl magnesium iodide, followed by acid hydrolysis, the product formed is:	Propanoic acid	Propane	Propanal	Propanol
2	Which enzyme is not involved in fermentation of starch?	Diastase	Zymase	Urease	Invertase
3	Ketones are prepared by oxidation of:	Primary alcohol	Secondary alcohol	Tertiary alcohol	all of these
4	Which is not a fatty acid?	Propanoic acid	Acetic acid	Phthalic acid	Butanoic acid
5	Which of these polymers is an addition polymers?	Nylon-6,6	Epoxy resin	Terylene	Polystyrene
6	Which woody raw material is used for the manufacture of paper pulp?	Poplar	Bagasse	Cotton	Rice straw
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8	A single chloride free radical can destroy how many ozone molecules?	100	100,000	10,000	10
9	Which statement is incorrect?	All the metals are good conductor of electricity	All the metals are good conductor of heat	All the metals form positive ions	All the metals form acidic oxides
10	The Element which is deposited at cathode during the electrolysis of brine in diaphragm cell?	H_2	Na	Cl_2	O_2
11	Chemical composition of colemanite is:	$Ca \cdot B_4O_7 \cdot 4H_2O$	$Ca_2B_6O_{11} \cdot 5H_2O$	$Na_2B_4O_7 \cdot 4H_2O$	$CaNaB_5O_9 \cdot 8H_2O$
12	Which catalyst is used in contact process?	SO_3	Fe_2O_3	V_2O_5	Ag_2O
13	Which is the strongest acid?	$HClO_3$	$HClO_4$	$HClO$	$HClO_2$
14	Which is a non-typical transition element?	Cr	Mn	Fe	Zn
15	In t-butyl alcohol, the tertiary carbon is bonded to:	No hydrogen atom	Three hydrogen atoms	One hydrogen atom	Two hydrogen atoms
16	Synthetic rubber is made by polymerization of:	Chloroform	Acetylene	Chloroprene	Divinyl acetylene
17	During nitration of benzene, the active nitrating agent is:	NO_3	NO_2^+	NO_2	HNO_3

23(Obj)(★★)-2025(2nd-A)- (MULTAN)

Paper Code		2025 (2 nd -A)		Roll No: _____	
Number: 4485		INTERMEDIATE PART-II (12 th Class)			
CHEMISTRY PAPER-II					
TIME ALLOWED: 20 Minutes		OBJECTIVE		MAXIMUM MARKS: 17	
Q.No.1	You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number, on bubble sheet. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question.				
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16	Ketones are prepared by oxidation of:	Primary alcohol	Secondary alcohol	Tertiary alcohol	all of these
17	Which is not a fatty acid?	Propanoic acid	Acetic acid	Phthalic acid	Butanoic acid

Paper Code	2025 (2 nd -A)	Roll No: _____
Number: 4487	INTERMEDIATE PART-II (12 th Class)	

CHEMISTRY PAPER-II

TIME ALLOWED: 20 Minutes

OBJECTIVE

MAXIMUM MARKS: 17

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