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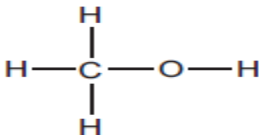
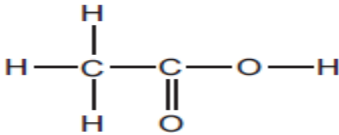
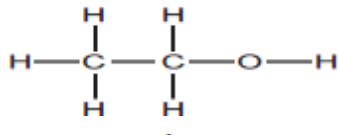
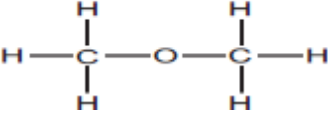
Organic Chemistry

FBISE Chemistry Class 9 (SSC-I)

Domain E: Organic Chemistry

24 questions | questions

Original FBISE question crops. National Curriculum 2022-23 topic.

12.	Which two compounds are members of the same homologous series? 1  2  3  4 	1 and 2	1 and 3	1 and 4	2 and 4
	Which structure is not an		CH ₃		

27.	Which of the following groups contain compounds that all belong to the same homologous series?	CH_4 C_2H_6 C_3H_6	CH_4 C_2H_6 C_3H_8	C_2H_4 C_3H_6 C_4H_{10}	C_3H_4 C_3H_6 C_3H_8
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28.	Butane and methylpropane are isomers. Which formula is different for the two isomers?	empirical formula	general formula	molecular formula	structural formula
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Scenario for MCQ (53-56)		A student studies a group of organic compounds: methane (CH₄), ethane (C₂H₆), propane (C₃H₈), and butane (C₄H₁₀). He observes that each compound differs by one carbon atom and shows similar chemical behavior.			
53.	If the student wants to continue the study with the next compound in this exact same group, what should its chemical formula be?	C ₅ H ₁₀	C ₄ H ₁₂	C ₅ H ₁₂	C ₆ H ₁₄

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54.	What is the common difference between successive members?	CH ₂ group	CH ₃ group	C ₂ H ₄ group	H ₂ group

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55.	Why do these compounds show similar chemical properties?	Same molecular mass	Same functional group	Same number of atoms	Same physical state

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56.	Which property shows a gradual change in a homologous series?	Chemical reactivity	Functional group	Boiling point	Type of bonding

OR	Draw structural formula of the following:	1.5
	درج شدہ کا ساختی فارمولہ بنائیں:	+
	a) Methanol میتھانول b) Methanoic acid میتھانوئیک ایسڈ	1.5

(vii)	Write general formulas of the following. Also give one example of each. درج شدہ کے جنرل فارمولے تحریر کریں نیز ایک مثال بھی دیں۔	03
	a) Alkene ^{الکین} b) Alkyne ^{الکائین} c) Alcohol ^{الکحل}	

OR	Draw structural formula of the following: درج شدہ کے سٹرکچرل فارمولے بنائیں:	1.5 +
	a) Methanoic Acid ^{میٹھا نوئک ایسڈ} b) Propane ^{پروپین}	1.5

(vii)	Write general formula of the following. Give an example of each. درج شدہ کے جنرل فارمولے تحریر کریں نیز ایک مثال بھی دیں۔	1.5 +	OR	Identify the period number of the following elements by their electronic configuration: درج شدہ عناصر کے پیریڈ نمبر کی شناخت الیکٹرانک کنفیگوریشن کے ذریعے کریں۔	03
	a) Alkene ^{الکین} b) Carboxylic acid ^{کاربکسک ایسڈ} c) Alkane ^{الکین}	1.5		a) ${}^6_3\text{Li}$ b) ${}^9_5\text{B}$ c) ${}^{21}_{10}\text{Ne}$	

9.	The functional group in amines is: امائنز میں کون سا فنکشنل گروپ ہوتا ہے؟	-OH	-COOH	-CHO	-NH ₂
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OR	Draw the structural formula of C ₄ H ₁₀ . Is it a saturated hydrocarbon or unsaturated hydrocarbon? C ₄ H ₁₀ کا ساختی فارمولا بنائیں۔ کیا یہ ہائیڈروکاربن سیر شدہ ہے یا غیر سیر شدہ ہے؟
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(vii)	Compare 'aldehydes' with 'ketones'. Give one example of each. ایلڈی ہائیڈز اور کیٹونز کا موازنہ کریں۔ ہر ایک کی ایک مثال بھی دیں۔	03
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11.	Which of the following can have more than one structural formula?	CH ₄	C ₂ H ₆	C ₃ H ₈	C ₄ H ₈
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10.	The general formula of Carboxylic acids is:	C _n H _{2n+2} COOH	C _n H _{2n} O ₂	C _n H _{2n+1} COOH	C _n H _{2n} COOH
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OR	What is meant by 'homologous series' in organic chemistry? Why do members of a homologous series have similar chemical properties?	2+1
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First Annual 2026 | Section B Q2(viii) OR | 3 marks

1.5 + 1.5	OR	Classify the following compounds as alcohol, ether and phenol: a. $CH_3OCH_2CH_3$ c. C_6H_5OH b. CH_3OH	1+1 +1
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First Annual 2026 | Section B Q2(ix) | 3 marks

(ix)	Write any three characteristics of homologous series.	1.5 + 1.5
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First Annual 2026 | Section B Q2(viii) | 3 marks

(viii)	Draw the structural formula of ethene (C_2H_4) and ethanol (C_2H_5OH) showing the correct bonds.	1.5 + 1.5
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FBISE model paper | Section A Q1(i) | 1 mark

(i)	Suggest the primary focus of organic chemistry?	The behavior of inorganic salts	The study of carbon-based molecules and their reactions	The study of metals and alloys	The properties of gases and their interactions
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FBISE model paper | Section B Q2(vi) | 3 marks

(vi)	Differentiate between molecular formula and structural formula using the example of structural isomers of C_4H_{10} .	1.5+1.5
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First Annual 2026 | Section B Q2(i) OR | 3 marks

Draw the structural formula of CH_3OH and identify functional group in it. CH_3OH کا سٹرکچرل فارمولہ بنائیں نیز اس میں فنکشنل گروپ کی پہچان کریں۔	2+1
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First Annual 2026 | Section B Q2(vii) OR | 3 marks

OR	Draw the different possible correct structural formulae of the following: درج شدہ کے مختلف ممکن درست سٹرکچرل فارمولے بنائیں: a. C_4H_{10} b. C_4H_8	1.5 + 1.5
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