

APOLLO

Nature of Science in Chemistry

FBISE Chemistry Class 9 (SSC-I)

Domain A: Nature of Science in Chemistry

14 questions | questions

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

Scenario for MCQ (41-44)		A research centre has different laboratories. In one lab, scientists study how enzymes work in the human body. In another lab, researchers develop new medicines to treat diseases. In a third lab, radioactive isotopes are used to treat cancer patients			
41.	Scientists studying how enzymes function in the human body are working in which field?	Organic Chemistry	Biochemistry	Analytical Chemistry	Geochemistry

Scenario for MCQ (41-44)		A research centre has different laboratories. In one lab, scientists study how enzymes work in the human body. In another lab, researchers develop new medicines to treat diseases. In a third lab, radioactive isotopes are used to treat cancer patients			
42.	The development of new medicines to treat diseases belongs to:	Environmental Chemistry	Organic Chemistry	Polymer Chemistry	Physical Chemistry

Scenario for MCQ (41-44)		A research centre has different laboratories. In one lab, scientists study how enzymes work in the human body. In another lab, researchers develop new medicines to treat diseases. In a third lab, radioactive isotopes are used to treat cancer patients			
43.	The use of radioactive isotopes in cancer treatment is related to:	Nuclear Chemistry	Inorganic Chemistry	Astrochemistry	Analytical Chemistry

Scenario for MCQ (41-44)		A research centre has different laboratories. In one lab, scientists study how enzymes work in the human body. In another lab, researchers develop new medicines to treat diseases. In a third lab, radioactive isotopes are used to treat cancer patients			
44.	Which of the following best explains why different laboratories are needed in the research center?	Each laboratory is designed exclusively to handle a specific state of matter (solids, liquids, or gases).	Different branches of chemistry focus on different types of problems and applications	Separate laboratories prevent different chemical elements from contaminating each other's equipment	Laboratories are separated randomly without any purpose

Briefly describe the following:		
کیما کی درج شاخوں کو مختصر بیان کریں:		
OR	a) Analytical chemistry b) Medicinal chemistry c) Inorganic chemistry	03
	تجزیاتی کیمیا ادویاتی کیمیا غیر نامیاتی کیمیا	

Do the following air pollutants cause harm?			Briefly describe the following:		
درج شدہ ہوائی آلودگیاں کیسے نقصان دہ ہیں؟			کیما کی درج شاخوں کو مختصر بیان کریں:		
a)	Carbon monoxide	03	OR	a) Nuclear chemistry	03
b)	Sulfur dioxide			b) Environmental chemistry	
				c) Astro chemistry	
	کاربن مونو آکسائیڈ			نیوکلیر کیمیا	
	سلفر ڈائی آکسائیڈ			ماحولیاتی کیمیا	
				آسٹرو کیمیا	

Study of chemical changes that occur in living organisms is done in:	Biochemistry	Analytical Chemistry	Physical Chemistry	Inorganic Chemistry
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Differentiate between 'Organic chemistry' and 'Inorganic chemistry'.		03
OR	آرگینک کیمسٹری اور 'ان آرگینک کیمسٹری' میں فرق بیان کریں۔	

Chemistry mainly deals with the study of:	Living organisms	Matter and its interactions	Planets and stars	Historical events
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(i)	Identify the branch of Chemistry involved in the given statements:	1+1 +1	OR	Show the following conversions by drawing their electrons dot structures:	1.5 + 1.5
	a. Large scale production of NH_3 by Haber's process. b. Breakdown of glucose gives energy to our body. c. Use of chlorofluorocarbons (CFCs) in			a. $\text{Na} \rightarrow \text{Na}^+$ b. $\text{Cl} \rightarrow \text{Cl}^-$	

(i)	Identify the branch of chemistry that deals with given statements:	1+1 +1	OR	Differentiate between suspension and colloidal with one suitable example each.	1.5 + 1.5
	a. According to Boyle's law when pressure on a gas is applied its volume reduces. b. Industries produce SO_2 which cause acid rain. c. Our hair has a protein called Keratin which is essential for hair growth.				

(i)	Identify the branch of chemistry that deals with statements: a. Temperature of the earth is increasing gradually due to increase in concentration of CO ₂ . b. Contact process is used to manufacture sulphuric acid on large scale. c. When a gas is cooled to -273°C it liquefies.	1+1 +1
(ii)	How do the paths of positive and negative charges	

OR	Define following branches of chemistry. a. Astrochemistry b. Geochemistry c. Physical chemistry	1+1+1
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Briefly describe Nuclear chemistry, Biochemistry and Geochemistry.	1x3
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