SYNERGY SCIENCE OLYMPIAD – CLASS VIII

SYLLABUS & QUESTION PAPER FRAMEWORK

Total Marks: 50 | Questions: 50 | Suggested Duration: 60 Minutes | MCQ Format

1. EXAMINATION PATTERN

Section	Section Name	Marks
Section 1	*General Science*	*10*
Section 2	*Observational & Applied Science*	*10*
Section 3	*Logical & Pictorial Reasoning*	*10*
Section 4	*Basics of Physics, Chemistry & Biology*	*10*
Section 5	*Synergy Challenge – HOTS & Integrated Science*	*10*
TOTAL	**SSO Class VIII**	**50**

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QUESTION-DESIGN MATRIX

Question Type	Percentage	Approx. Questions
Conceptual	*30%*	*15*
Application-based	*30%*	*15*
Diagram / Picture / Data-based	*20%*	*10*
Numerical / Logical	*10%*	*5*
HOTS / Integrated Science	*10%*	*5*
TOTAL	*100%*	*50*

Level	Percentage	Questions
Easy / Foundation	20%	10
Moderate / Application	50%	25
Challenging / HOTS	30%	15
TOTAL	100%	50

6. SSO DESIGN PHILOSOPHY

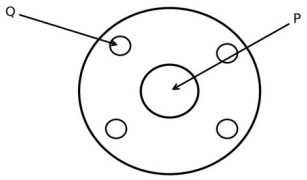
REMEMBER → UNDERSTAND → APPLY → ANALYSE → INTEGRATE

SYNERGY SCIENCE OLYMPIAD (SSO)

CLASS VIII – SAMPLE QUESTION PAPER

Instructions: Choose the most appropriate answer for each question.

Q1. *Study the labelled cell diagram below. Which structure is represented by P?*



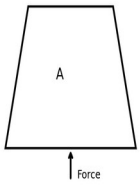
A) Cell membrane

B) Nucleus

C) Cytoplasm

D) Cell wall

Q2. *A force is applied on the object shown. If the same force acts over a smaller area A, what happens to the pressure?*



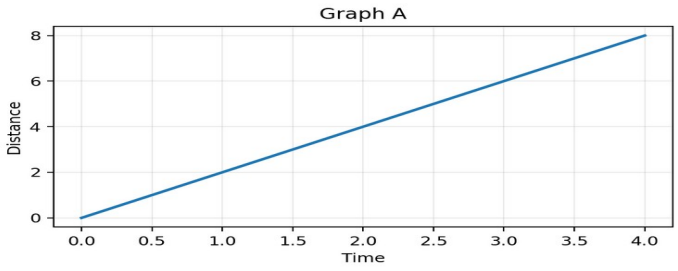
A) It decreases

B) It remains the same

C) It increases

D) It becomes zero

Q3. *Study Graph A. What does the straight-line distance–time graph indicate?*



A) Uniform motion

B) Increasing acceleration

C) Decreasing speed

D) No motion

Q4. *A farmer finds that the soil is too acidic. Which substance from the following is most suitable for neutralising the acidity?*

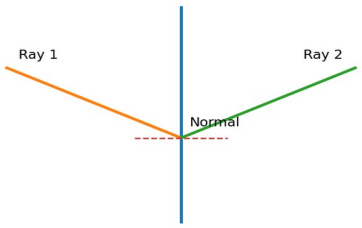
A) Common salt *B) Quicklime* *C) Sugar* *D) Distilled water*

Q5. *Which situation best demonstrates a useful role of microorganisms?*

A) Food spoilage *B) Causing infectious disease*

C) Helping in curd formation *D) Contaminating drinking water*

Q6. *In the reflection diagram, which principle should be used to compare the two angles made by the incident and reflected rays with the normal?*



A) Angle of incidence = angle of reflection

B) Angle of incidence is always double

C) Reflection occurs only from transparent objects

D) Light bends towards the normal on every surface

Q7. *A student adds more and more sugar to a fixed quantity of water and eventually some sugar remains undissolved. The solution has then become:*

A) Unsaturated *B) Saturated* *C) Pure solvent* *D) A suspension*

Q8. *Which movement of Earth is mainly responsible for the occurrence of day and night?*

A) Revolution around the Sun *B) Rotation on its axis*

C) Revolution of the Moon *D) Movement of stars*

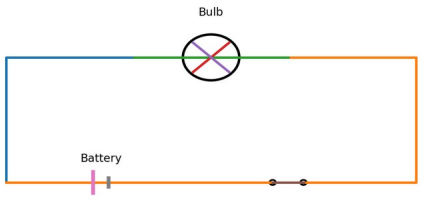
SYNERGY CHALLENGE

Q9. *A school wants to reduce its use of non-renewable resources. Which action is the best example of responsible resource conservation?*

A) Leaving lights on in empty rooms *B) Using more disposable plastic*

C) Reusing materials and saving electricity and water *D) Burning waste in the open*

Q10. *Study the circuit diagram. The switch is closed and the connections are complete. What is the most likely result?*



A) The bulb glows

B) The bulb cannot glow because the circuit is open

C) The battery produces no current in any condition

D) The bulb becomes a magnet

1	2	3	4	5	6	7	8	9	10
B	C	A	B	C	A	B	B	C	A