

Assessment Tools for Written Examination: SAQ & SEQ

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Introduction

Short Answer Questions (SAQs) and Short Essay Questions (SEQs) are designed to assess student's ability to recall specific facts, definition and concepts, synthesize information, analysis of problems and decision making. It is an important assessment tool for written examination.

Marks Distribution of Written Examination in Current MBBS Curriculum

Subject	Formative (10%)	MCQ (20%)	SAQ & SEQ (70%)	Total
Anatomy	20	40	140	200
Physiology	20	40	140	200
Biochemistry	20	40	140	200
Pharmacology	10	20	70	100
Forensic	10	20	50 + 20	100
Community	10	20	50 + 20	100
Pathology	10	20	70	100
Micro	10	20	70	100
Medicine	20	40	105 + 35	200
Surgery	20	40	140	200
Gynae	20	40	140	200

Short Answered Questions (SAQs)

- Short answered questions are open ended questions in which students are required to create an answer
- The answer usually of one word to few sentences
- It is equivalent to MCQ or fixed response, where responses are not provided
- Consecutive SAQ need not to be on same topic

SAQs Contd.

Types:

- Completion type
- Definition type
- Draw and label
- Unique answer variety
- Numerical
- Open ended
- Problem solving

SAQs Contd.

• **Completion type**

Q. The most common organism causing acute watery diarrhea in children is.....

ANS: Rota virus.

• **Definition type**

Q. List the six features of a child to diagnose severe dehydration.

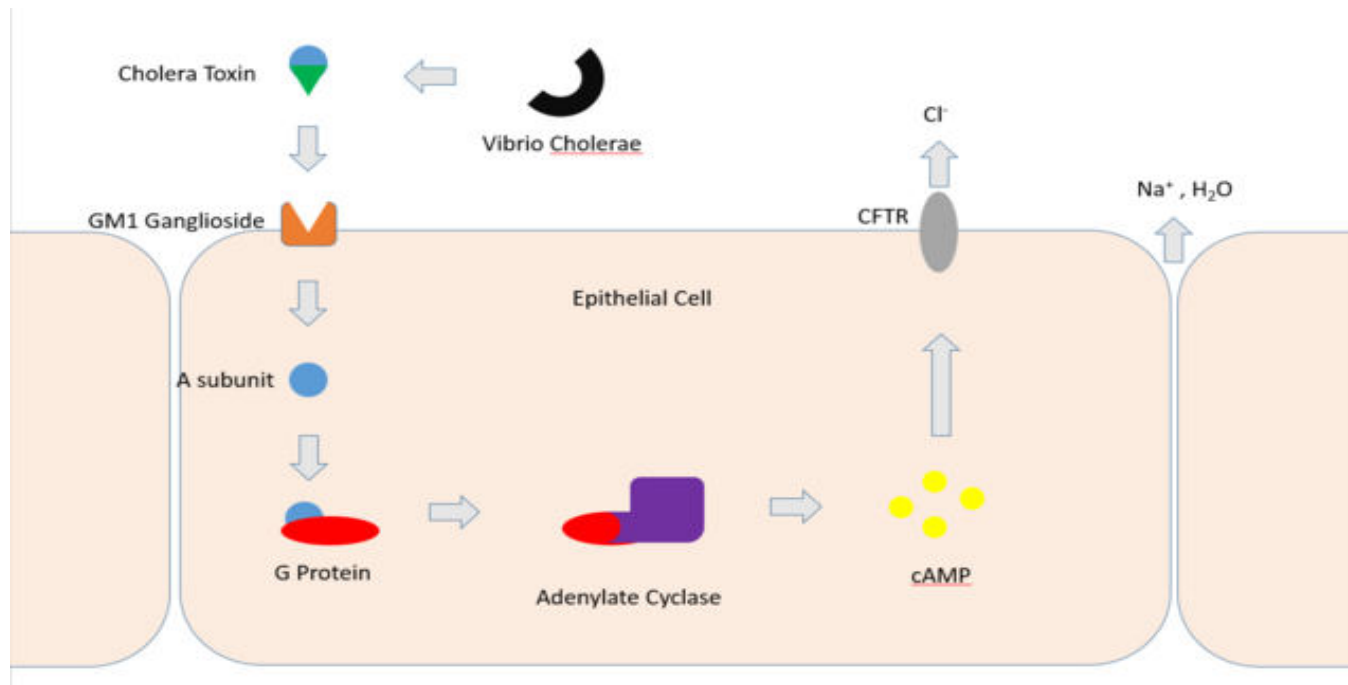
Ans:

- I. Drowsiness
- II. Inability to drink
- III. Eyes are sunken
- IV. Tears absent
- V. Tongue dry
- VI. Skin turgor goes back very slowly

SAQs Contd.

- **Draw and label.**

Q. Draw and label pathogenesis of cholera toxin.



SAQs Contd.

- **Unique answer variety**

Q 4. What is the assumed fluid deficit in a patient with severe dehydration.

Answer: 100 ml/kg.

- **Numerical**

Q 5. Outline fluid management in a 30 kg child of 12 years with severe dehydration mentioning type of fluid and drops/min.

Answer: cholera saline.

432 drops/min for 0.5 hour and 200 drops/min for 2.5 hours.

Short Answered Questions (SAQs)

Contd.

• Open ended

Q 6. What are the indications of antibiotic?

Answer:

1. Fever
2. Bloody diarrhea.
3. Cramping abdominal pain.
4. Cholera.

SAQs Contd.

• Problem solving

Q 7. What are the management shift in a patient with severe dehydration you would do if the patient develops oliguria with volume overload.

Answer:

1. Stop fluid resuscitation.
2. Feature of right heart failure need to be sought: raised JVP, tender hepatomegaly, oedema.
3. Send creatinine and electrolyte for diagnosis of AKI.
4. If the patient develops volume overload with respiratory distress, injectable frusemide should be added.

SAQs Contd.

Traits

Validity

Merits

More valid than essay questions.
Content coverage is more than essay.

Demerits

Assessment is often confined to factual knowledge.
Content coverage is less than MCQs.

Reliability

More reliable than essay questions.

Less reliable than MCQs.

Objectivity

More than essay questions.

Less than MCQs.

Feasibility

Easier to construct in comparison to MCQs.

Difficult to construct and grade in comparison to essay questions.

Expression
and writing capacity

Better judged in comparison to MCQs.

Judged, but less in comparison to essay questions.

Impact on students

Students can not guess or bluff

Student can guess or bluff in MCQ

Short Essay Question (SEQs)

Short Essay Question (SEQs)

- Frequently used assessment tool
- Evaluates students' understanding and application of medical knowledge
- Useful for assessing analytical skill and deeper understanding
- Consecutive SEQ need not to be on same topic

SEQs Contd.

Types:

1. Recall

- Tests ability to retrieve and articulate factual information from memory

2. Understanding

- Tests the ability to understand a disease or clinical process

3. Application

- Tests the ability to analyze and use given informations in decision making

4. Intigration

- Tests the ability to integrate knowledge from various aspects of the subject

SEQs Contd.

Recall:

- Q. (a) Name the instruments and consumables required for wound closure.
(b) Write the steps of secondary wound closure.

Here the student is required to recall name all the appropriate instruments and consumables as well as the steps of the procedure in correct sequence.

SEQs Contd.

Understanding:

Q. A patient presents with sudden onset of severe chest pain, shortness of breath and diaphoresis. Describe in brief, the likely pathophysiology of the patients symptoms.

The student is required to explain the mechanisms involved in the disease process. This reflects the ability of understanding

SEQs Contd.

Application:

Q. A 62 year male present with a 3 week history of progressive shortness of breath, fatigue and leg swelling. Physical examination reveals raised JVP, murmur and pitting oedema. He is hypertensive and diabetic. Recent Lab investigations reveal

Hb% 9.5 gm.dL, Hct 28%, BUN 45 mg/dL, Creatinine 2.5 mg/dL, Sodium 130 mmol/L and Potassium 5.2 mmol/L

- (a) What is the most likely diagnosis
- (b) Outline the initial management steps

The student has to use the available informations to formulate a diagnosis, and also plan a management plan appropriate for the given scenario.

SEQs Contd.

Intigration:

Q. A 65 year old male smoker, diabetic and asthamic patient present with recent weight loss. Chest X-ray revealed a lung mass.

- (a) Outline the diagnostic and staging work-up for this patient.
- (b) Write in brief, about the pre operative optimization strategy.

The student is supposed to integrate the knowledge of various diagnostic and staging investigations and procedures for choosing the best possible combination for the given scenario. The student is also required to synthesise a plan for optimise the patient preoperatively, keeping in mind the possible treatment options.

SEQs Contd.

Merits

- Assess higher order thinking
- Encourage in-depth understanding
- Promotes clarity of communication

Demerits

- Subjectivity in scoring
- Potential for ambiguity
- Limited content coverage within a limited time frame

A close-up photograph of a computer keyboard. The central focus is a large, rectangular blue key with the words "Thank You!" printed in white, sans-serif font. The key is slightly raised and has a dark blue border. Surrounding it are several white keys with dark blue borders. To the left, a key with a vertical line is visible. Above the blue key, there are keys with symbols: a hyphen/underscore and a curly brace, and a key with a "C" and a curly brace. Below the blue key, an "alt" key is partially visible. The keyboard is set against a light-colored, textured background.

Thank You!

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NEXT PRESENTATION FOR THE MONTH OF SEPTEMBER '25

Topic : “Righteous Issues in Medical Research and Publication”

a] Medical Ethics to Pursue Basic Science and Clinical Research

b] Plagiarism

c] Conflict of Interest

Participating Disciplines: Department of Forensic Medicine
Department of Orthopaedic Surgery
Department of Radiology
Date : 1st September , 2025
Time : 08.00 am

Venue : Medical Education Unit (3rd Floor, College building, DMC)

All respected Faculties are cordially invited

Medical Education unit

Dhaka Medical College