رؤية عُمان 2040
OmanVision

مركز القياس والتقويم التربوي
The Center for Educational Assessment and Measurement (CEAM)

سلطنة عُمان
وزارة التربية والتعليم

Assessment Document for Students' Learning

in Information and Communication Technology
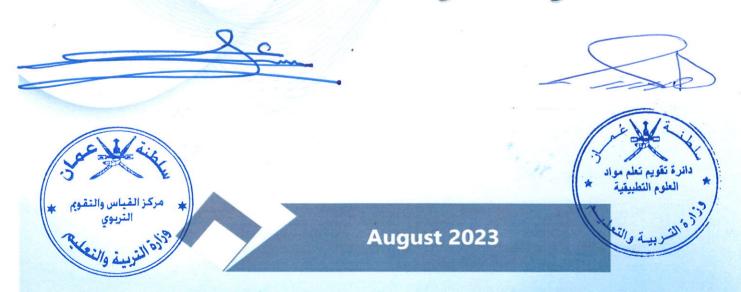
(ICT)

Grades (11-12) Bilingual Program

مركز القياس والتقويم التربوي
وزارة التربية والتعليم

دائرة تقويم تعلم مواد العلوم التطبيقية
وزارة التربية والتعليم

August 2023

Table of Contents

Assessment Objectives (AO)

- **AO1: Knowledge and Uunderstandingng**

    Demonstrate knowledge and understanding of ICT concepts, terms, and theories.
    Example Command Words: **Define, Identify, Label, List, Match, State.**

- **AO2: Application**

    Apply knowledge and understanding of ICT concepts, terms and theories to problems and issues in a variety of familiar and/or unfamiliar situations and contexts.
    Example Command Words: **Explain, Interpret**

- **AO3: Reasoning (Analysis)**

    The skill of analysis is important in students' responses to questions that use the following command words **'analyse', 'explain', 'comment', 'distinguish', 'interpret', 'suggest', 'demonstrate'**.

- **AO4: Reasoning (Evaluation)**

    This means to use 'Critical Thinking' to evaluate evidence in order to make reasoned judgements, present substantiated conclusions or make recommendations for action and implementation.
    Evaluation questions may include the following Command Words: **Advise, Evaluate, Assess, Recommend, Justify.**
    When evaluating students are expected to show that they have 'weighed' or questioned the evidence presented to them. This may be achieved by, for example:

- Understanding the relative significance or relevance of benefits/drawbacks to a particular decision or event.
- Recognising the difference between short-term & long-term impacts/consequences.
- Recognizing the relative significance of events, actions, decisions or evidence.
- Recognizing the relative significance of the causes and/or effects.

- **Assessment Objectives Requirements**

All assessments must include questions that effectively assess each of the four assessment objectives (AO1, AO2, AO3, and AO4). It is important to ensure a comprehensive evaluation of students' skills and knowledge in these areas.

Considering the challenges associated with creating assessments that precisely measure the degrees of each assessment objective, teachers are required to adhere to the following requirements for all assessments:

Assessment Objective	Allocation per Assessment
AO1: Knowledge and Understanding	40%
AO2: Application	25%
AO3: **Reasoning** (Analysis)	20%
AO4: **Reasoning** (Evaluation)	15%

Assessment Format

The assessment of this subject comprises two primary components: Continuous Assessments (CA) and a Final Examination. Each semester follows a grading scheme wherein Continuous Assessment contributes 60% to the overall score, while the Final Examination carries a weightage of 40%.

Student performance is evaluated through the allocation of marks, with a maximum limit of 100 marks. These marks are recorded at the conclusion of each semester. The following table presents an overview of the assessment structure for each semester:

Assessment	Number per semester	Type	Total marks	Weight	Total Weight
CAA - Presentation (maximum of 1)	1	Continuous (CA)	10	10 %	60%
CAA - Practical Assignments	1		20	20%	
CAA- Practical Test	1		10	10%	
STs - Short Tests	2		20	20%	
Final Exam	1	Final Examination	40	40%	40%

Continuous Aassessments (CA)

When designing Continuous Assessment Activities (CAA), teachers have flexibility in creating assessment tasks for their students. However, it is important to adhere to the following guidelines:

- Alignment with Assessment Objectives: The activity set should provide students with the opportunity to address the Assessment Objectives, and it should clearly indicate which Assessment Objectives are being assessed (Knowledge, Analysis, Application, or Evaluation).

- Written Response Requirement: The activity must necessitate a written response from the student. Oral responses or multiple-choice questions (MCQs) alone are not acceptable as forms of assessment.

- A deadline for completion should be provided to students, submissions beyond the deadline should not be accepted unless there are exceptional circumstances at the discretion of the teacher. Deadlines should provide all students with ample opportunity to complete the tasks.

- Complexity and Reflecting Thinking Skills: The complexity of the activity, as well as the level of thinking skills required from students, should align with the corresponding Assessment Objectives. Assessment activities should be designed in a manner that reflects the specific Assessment Objectives they are intended to assess.

Description of CAAs

A. <u>Presentation:</u>

- The presentation carries a weightage of 10 marks.
- The Presentations MAY be completed in small groups (maximum of 4 students collaborate and present together) or individually.
- Teacher **MUST** clearly communicate the presentation requirements, including the content, format, time limits, and evaluation criteria to ensure that students understand what is expected of them.
- The teacher **MUST** use and share a clear assessment rubric that outlines the criteria for evaluating the presentations. The use of rubric will enable teachers to provide constructive feedback to students, highlighting strengths and areas for improvement, and encouraging self-reflection and peer feedback to enhance learning.
- An example of an assessment rubric is included in *Appendix 1* for reference. Teachers have the option to either utilize or adapt this provided rubric or develop their own based on their specific requirements and preferences.
- Students **MUST** cite external sources of information – making it explicitly clear where they have included the work of others using in-text citations. Citations must also be accompanied by a full, detailed reference within the document, and full references for the sources they have used including (Author/Source, Title, Publisher, Date/Year of Publication).
- It is **MANDATORY** for the student portfolio to include the assessment rubric that was used to evaluate the student's performance, along with the assigned mark. Additionally, the portfolio must contain a written response for the presentation, which should be in the form of a printed presentation created using tools like PowerPoint, Google Slides, Apple Keynote, or any other appropriate platform. This written response, serving as evidence of the student's work, will be submitted for moderation purposes.

Group-presentation and grading: To ensure fairness and equitable grading in group presentation, teachers should consider the following guidelines:

> ➢ Clearly communicate to students that their work will be monitored, and teachers have the authority to assign different grades to students based on their level of contribution to the group task.
> ➢ Facilitate the equitable distribution of tasks among group members, ensuring that each student has a fair share of responsibilities.
> ➢ Observe students actively engaging during the presentation and specifically during his/her turn, taking note of their contributions and involvement, and grade students accordingly based on their level of engagement.
> ➢ Provide warning to students who are not actively participating in the group presentation, emphasizing that their grade may be affected if this behavior persists.

B. **Practical Assignment:**

The practical assignment is a task that requires students to use and apply their knowledge, understanding and skills in a practical or hands-on manner. It involves the completion of a specific set of tasks, which may include problem-solving, experimentation, programming, designing, or any other practical application related to the subject. The following are some guidelines for teachers:

- The practical assignment carries a weightage of 20 marks.
- It MUST be completed Individually.
- It may be completed in the classroom or at home.
- The teacher **MUST** provide clear instructions and requirements for the practical assignment, including the specific tasks, deliverables, technical specifications, and evaluation criteria. This ensures that students have a thorough understanding of what is expected of them.
- The teacher **MUST** use an assessment rubric that clearly outlines the criteria for evaluating all specific tasks. The rubric may cover aspects such as technical proficiency, problem-solving skills, creativity, and documentation or any other aspects based on teacher requirements and preferences. The use of a rubric facilitates consistent and fair assessment.
- Students **MUST** cite external sources of information – making it explicitly clear where they have included the work of others using in-text citations. Citations must also be accompanied by a full, detailed reference within the document, and full references for the sources they have used including (Author/Source, Title, Publisher, Date/Year of Publication).
- It is **MANDATORY** for the student portfolio to include the assessment rubric that was used to evaluate the student's performance, along with the assigned mark. Additionally, the portfolio must contain a written response for the practical assignment which can be in the form of a written/typed assignment document or screenshots of student product. This written response, serving as evidence of the student's work, will be submitted for moderation purposes.

C. __Practical Test:__

A practical test is an assessment method that focuses on evaluating students' practical skills and competencies in <u>a controlled testing environment</u>. It involves a predefined set of tasks or activities that students must complete within a specific time frame.

- The practical test carries a weightage of 10 marks.
- It MUST be completed Individually.
- The practical test MUST be completed in the classroom.
- The teacher **MUST** provide clear instructions and requirements for the practical test, including the specific tasks, technical specifications, and assessment criteria. This ensures that students have a thorough understanding of what is expected of them.
- During the administration of practical tests, the teacher **MUST** employ a set of proactive measures to prevent instances of cheating, to ensure the integrity of practical tests and maintain a fair assessment environment.
- The teacher **MUST** use an assessment rubric that clearly outlines the criteria for evaluating all specific tasks.
- It is **MANDATORY** for the student portfolio to include the assessment rubric that was used to assess the student's performance, along with the assigned mark. Additionally, the portfolio must contain a written response for the practical assignment which can be in the form of a written/typed assignment document or screenshots of student work. This written response, serving as evidence of the student's work, will be submitted for moderation purposes.

d. **Short Tests:**

The following guidelines should be adhered to when conducting short tests:

- **TWO** short tests **MUST** be completed; each one carries a weightage of 10 marks.
- Short tests should be completed individually by students and not in groups.
- IT **MUST** not be 'open book' activities where students have access to class notes or textbooks.
- Teacher supervision is **MANDATORY** during the completion of short tests to ensure fairness and maintain the integrity of the assessment process.
- Short tests should be designed to assess each of the four Assessment Objectives: Knowledge, Application, Analysis, and Evaluation. This ensures a comprehensive assessment of students' understanding and skills in various aspects of the subject matter.
  - It is **MANDATORY** for the student portfolio to include the student's short test paper along with the assigned mark. This paper serving as evidence of the student's grade, will be submitted for moderation purposes.

Re-submission of Continuous Assessments

The re-submission or re-sitting of continuous assessment activities should generally **NOT** be permitted for students. This ensures the consistency and fairness of the assessment process. However, in exceptional circumstances, such as prolonged authorized absence or significant medical conditions, students may be granted the opportunity to re-submit activities, subject to the approval of the teacher. It is important to note that re-submission or re-sitting should not be allowed solely for the purpose of raising grades, unless valid exceptional circumstances apply. This policy ensures the integrity of the assessment process and ensures that grades reflect the students' genuine performance and understanding.

Feedback on Continuous Assessment

Providing effective feedback is one of the most effective methods of helping students improve their marks. It is essential as part of the learning process that students receive feedback on both areas they are performing well in and in areas they need to improve.

When it comes to continually assessed activities, it is important for teachers to refrain from using mock formative assessments. Instead, ongoing feedback should be provided as students work on the summative assessment activity. This type of feedback requires teachers to exercise their professional judgment, guiding students towards identifying areas for improvement without simply providing the information they need to boost their grades.

To achieve this, teachers can employ questioning strategies that encourage students to reflect on their work and discover where important information may be missing or incorrect. By engaging students in this process, they are equipped with the necessary knowledge and skills to take responsibility for their learning and make necessary adjustments.

Final Examination

Examination Format

- One formal examination will be prepared and set at the end of each semester; this examination carries a weightage of 40 marks of the assessment for each semester.
- Grade 12 final exam to be prepared **CENTRALLY** and to be held at ministry of education Exam centers.
- Teachers are responsible for preparing & setting the examination paper based on the Unit Content and Learning Outcomes for grades 11.
- Each Multiple-Choice Question (MCQ) is to be awarded one mark only.
- For grade 11, the duration of the final exam to be between 2 – 3 hours. For grade 12, the duration will be 3 hours.

Question Types (Grade 11 & 12):

Question	Question Type	Percentage		Marks	Total Marks
Q1	**Multiple Choice Question (MCQ)**	20%		8	8
Q2	**Short Response Question**	80 %	35 %	14	32
Q3	**Extended Response Question**		30 %	12	
Q4	**Scenario based Question**		15 %	6	
Total		**100%**		**40**	**40**

Assessment Objectives

Objective	Knowledge and understanding	Application	Reasoning		Total Marks
			Analysis	**Evaluation**	
Weighting	40 %	25%	20%	15%	100%
Marks	16	10	8	6	40

Final Exam Table of Specification(Grade 11 & 12)

Grade 11 (Semester 1) TOS:

Unit	Weights	Multiple Choice No. of Items	Mark	Short Answer No. of Items	Mark	Long Answer No. of Items	Mark	Scenario Based No. of Items	Mark	Assessment Objective Ao1 40%	Ao2 25%	Ao3 20%	Ao4 15%	Total
Data processing and Information	60%	5	5	4	8	2	8	2	4	10	6	5	3	24
Monitoring and Control	40%	3	3	3	6	1	4	1	2	6	4	3	3	16
Total	100%	8	8	7	14	3	12	3	6	16	10	8	6	40

Grade 12 (Semester 1) TOS:

Unit	Weights	Multiple Choice No. of Items	Mark	Short Answer No. of Items	Mark	Long Answer No. of Items	Mark	Scenario Based No. of Items	Mark	Assessment Objective Ao1 40%	Ao2 25%	Ao3 20%	Ao4 15%	Total
IT in Society	80%	5	5	5	10	3	12	3	6	13	8	6	6	33
Programming for the Web	20%	3	3	2	4	-	-	-	-	3	2	2	-	7
Total	100%	8	8	7	14	3	12	3	6	16	10	8	6	40

Recording Students Marks:

It is imperative that students' grades be accurately documented for every unit or semester by adhering to the following suggested model.

Teachers are encouraged to utilize a spreadsheet that has been prepared in this prescribed format.

GED ICT Marks Sheet								
Grade:		**Semester:**				**Year:**		
Students Name	**Continuous Assessment Tools**					**Total %**	**Final Exam %**	**Total %**
	Continuous Assessment Activities (CAA)			**Short Tests (STs)**		60	40	100
	Presentation	Practical Assignment	Practical Test	Test1	Test2			
	10	20	10	10	10			

Student Portfolios

Teachers are required to maintain a comprehensive portfolio for each student, containing all assessments undertaken throughout the semester. It is very important that this portfolio is diligently compiled and maintained, ensuring that the included work is original and not copies. The primary objective of the portfolio is to facilitate the moderation process, thereby ensuring the integrity, reliability and quality of the marking and grading procedures. To achieve this, every Continuous Assessment Activity (CAA) must be accompanied by a front page clearly indicating the awarded mark. Moreover, the portfolio should contain the student's cumulative assessment record, meticulously documenting all assessment activities within the portfolio, along with their respective marks, as well as the final computation of the cumulative marks awarded to the student.

Quality Assurance

Student's achievement and academic work will be subject to the Ministry's revised quality assurance procedures. To maintain consistency in grading, teachers are expected to exercise their professional judgement when assessing both continuous assessments and examinations.

Appendix (1)

Presentation Assessment Form

The purpose of this form is to enable teachers to assess student presentations and provide feedback to students.

Student Name(s):

…………………………………………………………………………......

Assessment Title/Reference……………………………………

Date Issued…………...

Assessment Deadline………………………………………………………………….

Criteria	Description	Level of Achievement	Student Mark
Content Knowledge and Understanding **(3 Marks)**	Demonstrates a clear understanding of the topic and presents accurate and relevant information related to IT concepts and principles.	**Excellent** *(3 Marks):* Thorough understanding with a concise summary of the topic with all questions answered **Proficient** *(2 Marks):* Sound understanding with a good summary of the topic and mostly accurate information. **Satisfactory** *(1 Mark):* Adequate understanding with some accurate information. The presentation was informative, but several elements and major points were uncovered. **Unsatisfactory** *(0 Mark):* Limited understanding with inaccurate or incomplete information. The presentation was a brief look at the topic.	**/3**
Organization and Structure **(2 Marks)**	Presents a well-structured and logically organized presentation with clear headings and subheadings.	**Excellent/ Proficient** *(2 Marks):* Clear/ overall clear structure with logical flow and well or mostly well-defined headings/subheadings. No errors in spelling, grammar and punctuation. Information is clear and concise on each slide. **Satisfactory** *(1 Mark):* Adequate structure with some logical flow and adequately defined headings/ subheadings. Some errors in spelling, grammar, and punctuation. **Unsatisfactory** *(0 Mark):* Poor structure with unclear flow and poorly defined headings/subheadings. Many errors in spelling, grammar, and punctuation.	**/2**
Visual Aids and Presentation Style **(2 Marks)**	Effectively utilizes visual aids, such as slides and multimedia elements, to enhance understanding and engages the classmates with confident and appropriate delivery.	**Excellent/ Proficient** *(2 Marks):* Engaging or mostly engaging and visually appealing with effective use of multimedia and confident or mostly confident delivery. **Satisfactory** *(1 Mark):* Adequately engaging and visually appealing with some effective use of multimedia and satisfactory delivery.	**/2**

		Unsatisfactory *(0 Mark):* Lacks engagement and visual appeal with ineffective use of multimedia and poor delivery.	
Communication and Clarity **(2 Marks)**	Communicates ideas clearly and effectively, using appropriate language and terminology for the target audience.	**Excellent/ Proficient** *(2 Marks):* Clear or mostly clear, concise, and articulate communication with appropriate or mostly appropriate language and terminology.	**/2**
		Satisfactory *(1 Mark):* Adequate communication with some clarity and use of mostly appropriate language and terminology.	
		Unsatisfactory *(0 Mark):* Unclear and ineffective communication with inappropriate language and terminology.	
Time Management **(1 Mark)**	Stays within the allotted presentation time and effectively manages time to cover all key points.	**Excellent/ Proficient** *(1 Mark):* Precisely or mostly within the allotted time, covering all or most key points effectively.	**/1**
		Satisfactory *(0.5 Mark):* Adequately within the allotted time, covering some key points effectively.	
		Unsatisfactory *(0 Mark):* Goes significantly over the allotted time or fails to cover key points effectively.	
Total Mark			**/10**

Additional Feedback or Comments

For Questions and Suggestions @

Department of Information Technology Learning Assessment

moeitassessment@gmail.com