



GUIDELINES ON THE USE OF ELECTRONIC CALCULATORS IN NATIONAL EXAMINATIONS

1. The calculators used in the national examinations should have the following minimum features:
 - (a) four arithmetic operations (+, −, ×, ÷) including the order of operations and use of brackets;
 - (b) fractional function which retains the fraction in the form 'a/b' and 'a b/c';
 - (c) square root ($\sqrt{\quad}$) and cube root ($\sqrt[3]{\quad}$) functions; and
 - (d) value of Pi (π).

2. The following guidelines are to be adhered to in the use of calculators in national examinations.
 - (a) The calculator must be silent, with a visual display only.
 - (b) The working condition of the calculator (including the power supply) is the responsibility of the candidates and any fault in the calculator will not be considered as justification for special consideration.
 - (c) Candidates are not allowed to share calculators during the examination.
 - (d) No calculators with an external storage function which can allow users to input and store data via external storage media, e.g. cards, tapes, and plug-in modules, are allowed.
 - (e) No calculators with wireless communication capability with other machines, e.g. infra-red communication capability, are allowed.
 - (f) Any enclosed instruction leaflets containing any mathematical formula, conversion table or instructions are strictly prohibited, and must not be taken into the examination venue. Any such information on the calculator that cannot be removed must be securely covered.
 - (g) The original model number and brand must be indicated clearly on the calculator for verification purposes.
 - (h) No calculators with capabilities for storing and displaying verbal information are allowed.

Additional guidelines for scientific calculators

- (i) No programmable calculators are allowed.
 - (j) No calculators with permanent features of a programmed kind are allowed, e.g. calculators capable of numerical integration and/or numerical differentiation.

3. Graphing calculators are allowed for use ONLY in subjects examined at H1, H2 and H3 Levels of the GCE A-Level Curriculum. Candidates are to note the following:
 - (a) It is the candidates' responsibility to clear any information and/or programs stored in the graphing calculators before the examination.
 - (b) No prepared programs may be taken into the examination room. Information (including text or formulae) and/or programs stored in the calculator's memory must be cleared before the examination.
 - (c) No calculators with built-in symbolic algebra manipulations, symbolic differentiation or integration are allowed.

4. The use of any calculator with unacceptable features or for retrieval of information/programs during the examinations is an infringement of the regulations.

5. Candidates are only allowed to use approved calculator models. A list of approved models recommended for use could be found in Annex A.



LIST OF APPROVED SCIENTIFIC CALCULATORS

The following scientific calculator models are suitable for:

- PSLE Mathematics and Foundation Mathematics Examinations
- GCE N(T), N(A), O and A-Level Examinations

S/N	Calculator Brand	Calculator Model	Approved Period ¹
1	CASIO	FX 82MS	2003 – 2021
2		FX 85MS	2003 – 2021
3		FX 95MS	2003 – 2021
4		FX 96SG Plus	2013 – 2021
5		FX 97SG X	2018 – 2022
6		FX 350MS	2003 – 2021
7	CANON	F-960SG	2017 – 2021
8	SHARP	EL 509X	2015 – 2019
9		EL W531S	2010 – 2023
10		EL W531S II	2018 – 2022
11		EL W531XM	2014 – 2023
12		EL 533X	2013 – 2020

LIST OF APPROVED GRAPHING CALCULATORS

The following graphing calculator models are approved for use **ONLY** in subjects examined at H1, H2 and H3 Levels of the A-Level curriculum.

Note: All graphing calculators must be reset prior to any examination.

S/N	Calculator Brand	Calculator Model	Operating System	Approved Period ¹
1	CASIO	FX-9860GIIIs	OS 2.04 OS 2.09	2014 – 2022
2	TEXAS INSTRUMENTS	TI-84 Plus	OS 2.43	2006 – 2020
3		TI-84 Plus Silver Edition	OS 2.53MP	2006 – 2020
4		TI-84 Plus Pocket SE	OS 2.55MP	2012 – 2021
5		TI-84 Plus C Silver Edition	OS 4.0 OS 4.2	2015 – 2023
6		TI-84 Plus CE	OS 5.0.1 OS 5.1.5 OS 5.2.0 OS 5.2.2 OS 5.3.0 OS 5.3.1	2017 – 2020

¹ Please be informed that if there is no application for extension of the approved period for the calculator model, it will be removed from the list of approved calculators upon expiry. The onus is on the vendors to submit and apply for extension of the approved period if they wish to.