## Approved Scientific Calculators for the 2017 Higher School Certificate Examinations

#### **Updated December 2016**

The scientific calculators listed below are approved for use in the 2017 Higher School Certificate examinations. The examinations in which scientific calculators are permitted are listed in the equipment checklist. Please click here for<u>Equipment Checklist for Higher School Certificate Examinations</u>.

Please note that this list of approved calculators ALSO applies to the Mathematics General 2 HSC Examination from 2014. Further information is available in the <u>FAQs</u> for the Mathematics General syllabus.

Brand	Model	Brand	Model
ABACUS	SX-II MATRIX a	JASTEK	JasCS1
ABACUS	SX-II MATRIX n	JASTEK	JasCS EVO
CANON	F717SGA	OFFICE ONE	3000
CANON	F720	RSB	FB 350MS
CANON	F720i	SCHOLAR	DS-82MS
CASIO	fx-82AU	SCHOLAR	KD-350MS
CASIO	fx-82AU PLUS	SCHOLAR	D1-5
CASIO	fx-82AU PLUS II	SCHOLAR	SC-150MX
CASIO	fx-82MS	SCHOLAR	SC-250MX
CASIO	fx-82TL	SHARP	EL-509V
CASIO	fx-83WA	SHARP	EL-509WM
CASIO	fx-85MS	SHARP	EL-520WG
CASIO	fx-100AU	SHARP	EL-W531HA
CASIO	fx-100AU PLUS	SHARP	EL-531VH
CASIO	fx-100S	SHARP	EL-531WH
CASIO	fx-300MS	SHARP	EL-531X
CASIO	fx-350MS	SHARP	EL-W532THBW
CASIO	fx-911Z	SHARP	EL-531XH
Dick Smith	V7184	SHARP	EL-W532XH
HEWL-PACK	HP8S		
HEWL-PACK	HP10S		
HEWL-PACK	HP10S+		
INSYSTEM	IN-82SC		

Instruction booklets or cards (eg reference cards) on the operation of calculators are NOT permitted in the examination room. Candidates are expected to familiarise themselves with the calculator's operation beforehand.

Calculators must have been switched off for entry into the examination room.

# Features of approved calculators and features that are not permitted

### Features of approved calculators

In addition to the features of a basic (four operation) calculator, a scientific calculator typically includes the following:

- fraction keys (for fraction arithmetic)
- a percentage key
- a *π* key
- memory access keys
- an EXP key and a sign change (+/-) key
- square  $(x^2)$  and square root  $(\sqrt{y})$  keys
- logarithm and exponential keys (base 10 and base *e*)
- a power key ( $a^x$ ,  $x^y$  or similar)
- trigonometrical function keys with an INVERSE key for the inverse functions
- a capacity to work in both degree and radian mode
- a reciprocal key (1/x)
- permutation and/or combination keys  $({}^{n}P_{r}, {}^{n}C_{r})$
- cube and/or cube root keys
- parentheses keys
- statistical operations such as mean and standard deviation
- metric or currency conversion

### Features that are NOT permitted include:

- programmable (any calculator that can have a sequence of operations stored and then executed automatically is considered programmable and hence not allowed)
- capable of storing alphanumeric data input by a user (this does not exclude calculators with memories that are used to store intermediate numerical results obtained during calculations and required later)
- capable of storing, manipulating or graphing functions entered in symbolic form (this includes calculators with a graphic display capacity)
- capable of performing 'hard-wired' numerical routines for operations such as differentiation and definite integration, and the solution of equations
- capable of performing 'hard-wired' symbolic manipulations such as addition of algebraic expressions, binomial expansion and symbolic differentiation.
- 'soft' or hard-wired QWERTY keyboards
- capable of expressing surds in their simplest form