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**Specifications of Gamma Ray Spectrometer and Multi Channel Analyser (MCA)
for Applied Physics Deptt., GZSCCET, Bathinda.**

Sr. No.	Description of Item	Qty.	Unit
1	<p>Gamma Ray Spectrometer : Specifications :</p> <ul style="list-style-type: none"> * Gamma ray spectrometer with built in SCA facilitates operation in Integral, differential or window modes of counting. * Microcontroller based counter/timer with built in Serial and centronic parallel port. * Built in Amplifier with bipolar input and output polarity and total gain of ~600. * Regulated variable HV having range 0-1500V with low ripple 25 mV(rms). * Scintillation Detector with flat crystal of size 2"x2" with built in preamplifier. * Radioactive standard sources set ranging from 100 keV to 1.33 MeV. * Scintillation detector stand & source stand * Lead Absorbers * Copper and Aluminium absorber set * Detector holders. * Sliding bench with source holder and scatter stand. * Software for gamma ray spectrometer. <p align="right"><i>View Spec</i></p>	1	No.
2	<p>Multi Channel Analyser (MCA): Specifications :</p> <ul style="list-style-type: none"> * USB based 8K MCA Card with Data acquisition & processing software (should have both PHA & MCS modes of operation) * MCA Input: Unipolar Bipolar, Gaussian/TTL/tail pulses ranges 0-10V. * Resolution ranging from 256 to 8K channels * Pulse processing time of 7 μs including ADC conversion time of 5μs. * Power requirement: 5V, ~500 mA through USB cable directly * The software should have user interface panel for setting hardware (MCA) parameters. Optimized peak search algorithm. Nonlinear least-square fit of peaks with exponential tailed model along with Option for automatic addition of peaks at channels with high residue after fit. Nuclide identification and activity calculations. Furthermore it should generate comprehensive report for the analysis purpose. <p align="right"><i>View Spec</i></p>	1	No.

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