

Indian Institute of Technology Kanpur

Department of Computer Science & Engineering

IITK/CSE/2017-18/168
08 September 2017

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Sub: Purchase of **Mobile workstation/laptop**

We wish to purchase one mobile workstation/laptop, having the configuration given below. Please give separate sealed technical and price bids which must be put in an envelop inscribed "**Quotation for mobile workstation/laptop**".

In the technical bid give detailed technical specifications of the product(s) quoted on the parameters listed below. If multiple configurations/brands are available please give each configuration separately both in the technical and price bid for each configuration and/or brand. All prices should include all taxes as per GST.

Sealed bids should reach the undersigned by 17.00, Tue. 3 Oct. 2017. Bids may be delivered in the CSE department office.

Please take note of how the bids will be evaluated and the final vendor and configuration chosen.

Requirement for purchase of mobile workstation/laptop

Processor: Intel i7-sixth/seventh generation (preferred), 4MB/6MB/8MB cache, clock speed 2.4GHz or higher with turbo-boost 3.2GHz or higher. Equivalent or higher specification AMD or Intel Xeon processor also acceptable.

Memory RAM: 32GB, 2133MHz DDR4 or better. Expandability to 64GB preferred.

Disk: 256/512GB PCIe SSD + 512GB/1TB 7200RPM/5400RPM HDD (7200RPM preferred). Should be capable of hosting at least 2 (or 3 disks) in some combination of SSD+HDD.

Graphics: Discrete graphics 4GB or better video memory. CUDA compliance preferred. Support for external monitor preferred.

Screen: 39.62cm (15.6 inches) with at least 1920x1080 resolution, 250nits or higher, anti-glare IPS screen. 4K (3840x2160) resolution preferred.

Battery, power adapter: 4-cell/6-cell Li Polymer battery (45WH or higher, higher preferred) should last for at least 5hours (normal use). Higher number of hours/higher capacity preferred.

WLAN: 802.11 dual band ac+a/b/g wireless + Bluetooth 4.1.

WWAN: Wireless 3G/4G WAN connectivity preferred but not essential.

Ports: At least 2USB 3.0 + 1USB Type C (Thunderbot 3 preferred); HDMI (additional DVI preferred), RJ-45 (preferred); MMC, SD, SDHC, SDXC reader.

Finger print reader: desirable but not essential.

DVD/optical drive: desirable but not essential.

Multi-media: stereo speakers at least 1.5W (Dolby sound preferred); 720pHD webcam; embedded microphone array; combination or separate audio/microphone jack.

Keyboard: spill resistant backlit keyboard with Fn + Nav keys.

Ruggedness: Metal or carbon fibre reinforced case; Mil-spec or equivalent preferred.

Trackpad/Navigation: 2/3 key multi-touch touchpad; extra pointing device desirable.

Weight: Has to be less than 3kg. Lighter weight strongly preferred.

OS: DOS. Windows Home/professional will be accepted but not preferred. The buyer will install a Linux OS. So, if Linux compliance information is available it will be preferred.

Warranty: Minimum one year comprehensive international warranty. More than one year warranty preferred. Also, quote for extra warranty rates per year.

Choice of Vendor

Choice of vendor will be based on a composite evaluation of technical and price bid. Each configuration from a vendor will be evaluated technically for a maximum of 40marks and the price bid will be evaluated for a maximum of 60marks for a maximum total of 100marks. The vendor quoting the configuration with the highest score out of 100 will be chosen.

Technical evaluation scheme

For each configuration in the bid if the minimum stated specification on every parameter is satisfied a configuration will be given 40marks. For higher or preferred specification on each parameter extra marks will be given as follows:

CPU: 1 mark for seventh gen., 6MB cache 1mark, 8MB cache 1.5marks.

Memory: higher speed 1 mark; expandability to 64GB 1 mark.

Disk: higher capacity for SSD 1mark; higher capacity for HDD 1 mark; 0.5 mark for upto 3 drives.

Graphics: higher video memory 1 mark. CUDA compliance 1mark.

Screen: higher nits (300 or more) 1mark; 4K resolution 1 mark.

Battery: 6cell 1mark; higher hours rating at normal load (1 mark for every 3 hours beyond 5 hours, proportionately for less than 3hours beyond 5 and capped at a maximum of 2marks that is 11hours).

WWAN: 1mark if available.

Ports: 0.5mark if extra USB ports; 0.5mark for Thunderbolt 3; DVI 0.5mark; RJ45 0.5mark

Ruggedness: Mil-spec or equivalent certification 1mark.

Trackpad/Navigation: 0.5mark for extra pointing device.

Weight: 1pt for every 100gms less than 3Kg calculated proportionately capped at 5marks.

OS: (-1)mark if Windows is bundled with the configuration; 1mark for Linux compliance from manufacturer.

Warranty: 1pt for every extra year (beyond 1year) of international warranty up to total of 3 years. That is max 2 marks.

To get the final technical score the configuration with the highest total number of points will be scaled to 40marks. All other configurations will be scaled down proportionately. Any configuration which is below the minimum technical specification on any parameter will be rejected.

Financial evaluation scheme

Only configurations that are not rejected after technical evaluation will be considered for financial evaluation. The configuration with the minimum price will be given 60marks. All configurations with a higher price will be scaled proportionately lower. So, if p is the price of a higher priced configuration and m is the price of the minimum priced configuration the marks for the higher priced configuration will be $60 \times (m/p)$.

Scheme for selection of vendor and final configuration and price

The final total score will be calculated by adding the technical and financial score for each configuration. Calculation will be done rounded to second place after the decimal point.

If there is a tie for the final total score the vendor will be chosen whose financial bid is lower. If both technical and financial scores are tied then there will be a draw of lots. Once the vendor is finalized the committee may at its discretion negotiate with the vendor for a better/higher technical configuration at the same price or at a proportionately higher price as the configuration with the highest total score. Vendor may be asked to match online price for equivalent configuration, if available.



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