

CENTRE FOR DEVELOPMENT ECONOMICS
DELHI SCHOOL OF ECONOMICS
DELHI 110007

Sealed bids are invited from authorized resellers of Apple for the supply and installation of Desktop and Laptops as per quantities required and detailed specifications appended below.

1. MacBook Air :- 1 Qty	
Display	Retina display - 13.3-inch (diagonal) LED-backlit display with IPS technology; 2560x1600 native resolution
Touch ID	Integrated Touch ID sensor
Processor	1.6GHz dual-core Intel Core i5, Turbo Boost up to 3.6GHz, with 4MB L3 cache
Storage1	128GB PCIe-based SSD
Memory	8GB of 2133MHz LPDDR3 onboard memory
Battery and Power	Up to 12 hours wireless web Up to 13 hours iTunes movie playback Up to 30 days of standby time Built-in 50.3-watt-hour lithium-polymer battery 30W USB-C Power Adapter; USB-C power port
Size and Weight	Height: 0.41–1.56 cm (0.16–0.61 inches)
Graphics	Support for Thunderbolt 3–enabled external graphics processors (eGPUs) Intel UHD Graphics 617
Camera	720p FaceTime HD camera
Charging and Expansion	Two Thunderbolt 3 (USB-C) ports with support for: - Charging and DisplayPort
Wireless	802.11ac Wi-Fi wireless networking; IEEE 802.11a/b/g/n compatible
Bluetooth	Bluetooth 4.2 wireless technology
Audio	Stereo speakers, Three microphones, 3.5mm headphone jack
2. MacBook Air :- 1 Qty	
Display	Retina display - 13.3-inch (diagonal) LED-backlit display with IPS technology; 2560x1600 native resolution
Touch ID	Integrated Touch ID sensor
Processor	1.6GHz dual-core Intel Core i5, Turbo Boost up to 3.6GHz, with 4MB L3 cache
Storage1	256 GB PCIe-based SSD
Memory	8GB of 2133MHz LPDDR3 onboard memory

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Size and Weight	Height: 0.41–1.56 cm (0.16–0.61 inches)
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Camera	720p FaceTime HD camera
Charging and Expansion	Two Thunderbolt 3 (USB-C) ports with support for: - Charging and DisplayPort
Wireless	802.11ac Wi-Fi wireless networking; IEEE 802.11a/b/g/n compatible
Bluetooth	Bluetooth 4.2 wireless technology
Audio	Stereo speakers, Three microphones, 3.5mm headphone jack
3. MacBook Pro :- 1 Qty	
Display	Retina display, 13.3-inch (diagonal) LED-backlit display with IPS technology; 2560x1600 native resolution at 227 pixels per inch with support for millions of colours
Processor	13-inch model, 2.3GHz dual-core Intel Core i5, Turbo Boost up to 3.6GHz, with 64MB of eDRAM
Storage1	128GB SSD
Memory	8GB of 2133MHz LPDDR3 onboard memory
Graphics	Intel Iris Plus Graphics 640
Charging and Expansion	Two Thunderbolt 3 (USB-C) ports with support for: Charging and DisplayPort
Keyboard and Trackpad	Full-sized backlit keyboard with: 78 (US) or 79 (ISO) keys including 12 function keys and four arrow keys, Ambient light sensor, Force Touch trackpad for precise cursor control and pressure-sensing capabilities; enables Force clicks, accelerators, pressure-sensitive drawing and Multi-Touch gestures
Wireless	802.11ac Wi-Fi wireless networking; IEEE 802.11a/b/g/n compatible
Camera	720p FaceTime HD camera

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Audio	13-inch model, Stereo speakers with high dynamic range, Two microphones , 3.5mm headphone jack
Battery and Power	Up to 10 hours wireless web, 61W USB-C Power Adapter
4. MacBook Pro :- 1 Qty	
Display	Retina display, 13.3-inch (diagonal) LED-backlit display with IPS technology; 2560x1600 native resolution at 227 pixels per inch with support for millions of colours
Processor	13-inch model, 2.3GHz dual-core Intel Core i5, Turbo Boost up to 3.6GHz, with 64MB of eDRAM
Storage1	256GB SSD
Memory	8GB of 2133MHz LPDDR3 onboard memory
Graphics	Intel Iris Plus Graphics 640
Charging and Expansion	Two Thunderbolt 3 (USB-C) ports with support for: Charging and DisplayPort
Keyboard and Trackpad	Full-sized backlit keyboard with: 78 (US) or 79 (ISO) keys including 12 function keys and four arrow keys, Ambient light sensor, Force Touch trackpad for precise cursor control and pressure-sensing capabilities; enables Force clicks, accelerators, pressure-sensitive drawing and Multi-Touch gestures
Wireless	802.11ac Wi-Fi wireless networking; IEEE 802.11a/b/g/n compatible
Camera	720p FaceTime HD camera
Audio	13-inch model, Stereo speakers with high dynamic range, Two microphones , 3.5mm headphone jack
Battery and Power	Up to 10 hours wireless web, 61W USB-C Power Adapter
5. MacBook Pro :- 1 Qty	
Display	Retina display, 13.3-inch (diagonal) LED-backlit display with IPS technology; 2560x1600 native resolution at 227 pixels per inch with support for millions of colours
Processor	13-inch model with Touch Bar, 2.3GHz quad-core Intel Core i5, Turbo Boost up to 3.8GHz, with 128MB of eDRAM
Storage1	256GB SSD
Memory	8GB of 2133MHz LPDDR3 onboard memory

Graphics	Intel Iris Plus Graphics 655
Charging and Expansion	Four Thunderbolt 3 (USB-C) ports with support for: Charging and DisplayPort
Keyboard and Trackpad	Full-sized backlit keyboard with: 64 (US) or 65 (ISO) keys including four arrow keys, Touch Bar with integrated Touch ID sensor, Ambient light sensor & Force Touch trackpad for precise cursor control and pressure-sensing capabilities; enables Force clicks, accelerators, pressure-sensitive drawing and Multi-Touch gestures
Wireless	802.11ac Wi-Fi wireless networking; IEEE 802.11a/b/g/n compatible
Camera	720p FaceTime HD camera
Audio	13-inch model with Touch Bar, Stereo speakers with high dynamic range, Three microphones , 3.5mm headphone jack
Battery and Power	Up to 10 hours wireless web, 61W USB-C Power Adapter
6. MacBook Pro :- 1 Qty	
Display	Retina display, 13.3-inch (diagonal) LED-backlit display with IPS technology; 2560x1600 native resolution at 227 pixels per inch with support for millions of colours
Processor	13-inch model with Touch Bar, 2.3GHz quad-core Intel Core i5, Turbo Boost up to 3.8GHz, with 128MB of eDRAM
Storage1	512GB SSD
Memory	8GB of 2133MHz LPDDR3 onboard memory
Graphics	Intel Iris Plus Graphics 655
Charging and Expansion	Four Thunderbolt 3 (USB-C) ports with support for: Charging and DisplayPort
Keyboard and Trackpad	Full-sized backlit keyboard with: 64 (US) or 65 (ISO) keys including four arrow keys, Touch Bar with integrated Touch ID sensor, Ambient light sensor & Force Touch trackpad for precise cursor control and pressure-sensing capabilities; enables Force clicks, accelerators, pressure-sensitive drawing and Multi-Touch gestures
Wireless	802.11ac Wi-Fi wireless networking; IEEE 802.11a/b/g/n compatible
Camera	720p FaceTime HD camera

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Audio	13-inch model with Touch Bar, Stereo speakers with high dynamic range, Three microphones , 3.5mm headphone jack
Battery and Power	Up to 10 hours wireless web, 61W USB-C Power Adapter
7. I MAC Desktop 21.5-inch :- 1 Qty	
Display	Retina 4K display, 21.5-inch (diagonal) Retina 4K display, 4096x2304 resolution with support for one billion colours, 500 nits brightness, Wide colour (P3)
Processor	3.0GHz quad-coreIntel Core i5 (Turbo Boost up to 3.5GHz)
Memory	8GB of 2400MHz DDR4 onboard memory
Storage	1TB (5400-rpm) hard drive
Graphics	Radeon Pro 555 with 2GB of VRAM
Audio	Stereo speakers, Microphone, 3.5mm headphone jack, Support for Apple iPhone headset with microphone
Connections and Expansion	3.5mm headphone jack, SDXC card slot, Four USB 3 ports (compatible with USB 2), Two Thunderbolt 3 (USB-C) ports with support for: DisplayPort, Thunderbolt (up to 40 Gbps), USB 3.1 Gen 2 (up to 10 Gbps), Thunderbolt 2, HDMI, DVI and VGA supported using adapters (sold separately), 10/100/1000BASE-T Gigabit Ethernet (RJ-45 connector), Kensington lock slot
Wireless	802.11ac Wi-Fi wireless networking, IEEE 802.11a/b/g/n compatible
Bluetooth	Bluetooth 4.2 wireless technology
Input	Magic Keyboard - with Numeric Keypad, Magic Mouse 2 with Trackpad
8. I MAC Desktop 21.5-inch :- 1 Qty	
Display	Retina 4K display, 21.5-inch (diagonal) Retina 4K display, 4096x2304 resolution with support for one billion colours, 500 nits brightness, Wide colour (P3)
Processor	3.4GHz quad-coreIntel Core i5 (Turbo Boost up to 3.8GHz)
Memory	8GB of 2400MHz DDR4 onboard memory
Storage	1TB Fusion Drive
Graphics	Radeon Pro 560 with 4GB of VRAM

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Audio	Stereo speakers, Microphone, 3.5mm headphone jack, Support for Apple iPhone headset with microphone
Connections and Expansion	3.5mm headphone jack, SDXC card slot, Four USB 3 ports (compatible with USB 2), Two Thunderbolt 3 (USB-C) ports with support for: DisplayPort, Thunderbolt (up to 40 Gbps), USB 3.1 Gen 2 (up to 10 Gbps), Thunderbolt 2, HDMI, DVI and VGA supported using adapters (sold separately), 10/100/1000BASE-T Gigabit Ethernet (RJ-45 connector), Kensington lock slot
Wireless	802.11ac Wi-Fi wireless networking, IEEE 802.11a/b/g/n compatible
Bluetooth	Bluetooth 4.2 wireless technology
Input	Magic Keyboard - with Numeric Keypad, Magic Mouse 2 with Trackpad
9. I MAC Desktop 27-inch : 1 Qty	
Display	Retina 5K display, 27-inch (diagonal) Retina 5K display, 5120x2880 resolution with support for one billion colours, 500 nits brightness, Wide colour (P3)
Processor	3.4GHz quad-core Intel Core i5 (Turbo Boost up to 3.8GHz)
Memory	8GB (two 4GB) of 2400MHz DDR4 memory; four SO-DIMM slots, user accessible
Storage	1TB Fusion Drive
Graphics	Radeon Pro 570 with 4GB of VRAM
Audio	Stereo speakers, Microphone, 3.5mm headphone jack, Support for Apple iPhone headset with microphone
Connections and Expansion	3.5mm headphone jack, SDXC card slot, Four USB 3 ports (compatible with USB 2), Two Thunderbolt 3 (USB-C) ports with support for: DisplayPort, Thunderbolt (up to 40 Gbps), USB 3.1 Gen 2 (up to 10 Gbps), Thunderbolt 2, HDMI, DVI and VGA supported using adapters (sold separately), 10/100/1000BASE-T Gigabit Ethernet (RJ-45 connector), Kensington lock slot
Wireless	802.11ac Wi-Fi wireless networking, IEEE 802.11a/b/g/n compatible

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Bluetooth	Bluetooth 4.2 wireless technology
Input	Magic Keyboard - with Numeric Keypad, Magic Mouse 2 with Trackpad
10. I MAC Desktop 27-inch : 1 Qty	
Display	Retina 5K display, 27-inch (diagonal) Retina 5K display, 5120x2880 resolution with support for one billion colours, 500 nits brightness, Wide colour (P3)
Processor	3.5GHz quad-core Intel Core i5 (Turbo Boost up to 4.1GHz)
Memory	8GB (two 4GB) of 2400MHz DDR4 memory; four SO-DIMM slots, user accessible
Storage	1TB Fusion Drive
Graphics	Radeon Pro 575 with 4GB of VRAM
Audio	Stereo speakers, Microphone, 3.5mm headphone jack, Support for Apple iPhone headset with microphone
Connections and Expansion	3.5mm headphone jack, SDXC card slot, Four USB 3 ports (compatible with USB 2), Two Thunderbolt 3 (USB-C) ports with support for: DisplayPort, Thunderbolt (up to 40 Gbps), USB 3.1 Gen 2 (up to 10 Gbps), Thunderbolt 2, HDMI, DVI and VGA supported using adapters (sold separately), 10/100/1000BASE-T Gigabit Ethernet (RJ-45 connector), Kensington lock slot
Wireless	802.11ac Wi-Fi wireless networking, IEEE 802.11a/b/g/n compatible
Bluetooth	Bluetooth 4.2 wireless technology
Input	Magic Keyboard - with Numeric Keypad, Magic Mouse 2 with Trackpad
11. I MAC Desktop 27-inch : 1 Qty	
Display	Retina 5K display, 27-inch (diagonal) Retina 5K display, 5120x2880 resolution with support for one billion colours, 500 nits brightness, Wide colour (P3)
Processor	3.8GHz quad-core Intel Core i5 (Turbo Boost up to 4.2GHz)
Memory	8GB (two 4GB) of 2400MHz DDR4 memory; four SO-DIMM slots, user accessible
Storage	2TB Fusion Drive
Graphics	Radeon Pro 580 with 8GB of VRAM

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Audio	Stereo speakers, Microphone, 3.5mm headphone jack, Support for Apple iPhone headset with microphone
Connections and Expansion	3.5mm headphone jack, SDXC card slot, Four USB 3 ports (compatible with USB 2), Two Thunderbolt 3 (USB-C) ports with support for: DisplayPort, Thunderbolt (up to 40 Gbps), USB 3.1 Gen 2 (up to 10 Gbps), Thunderbolt 2, HDMI, DVI and VGA supported using adapters (sold separately), 10/100/1000BASE-T Gigabit Ethernet (RJ-45 connector), Kensington lock slot
Wireless	802.11ac Wi-Fi wireless networking, IEEE 802.11a/b/g/n compatible
Bluetooth	Bluetooth 4.2 wireless technology
Input	Magic Keyboard - with Numeric Keypad, Magic Mouse 2 with Trackpad
12. I MAC Pro Desktop : 1 Qty	
Display	5K Retina display, 27-inch (diagonal) Retina 5K
Processor	8-Core 3.2GHz Intel Xeon W, Turbo Boost up to 4.2GHz, 19MB cache
Memory	32GB 32GB of 2666MHz DDR4 ECC memory Quad-channel memory controller
Storage	1TB SSD
Graphics	Vega 56 Radeon Pro Vega 56 graphics processor with 8GB of HBM2 memory 56 compute units, 3584 stream processors, 9 teraflops single precision, 18 teraflops half precision
Audio	Stereo speakers, Four Microphone, 3.5mm headphone jack
Connections and Expansion	10Gb Ethernet - Nbase-T Ethernet with support for 1Gb, 2.5Gb, 5Gb and 10Gb Ethernet using RJ-45 connector, SDXC card slot with support for UHS-II, Four USB 3 ports, Four Thunderbolt 3 (USB-C) ports with support for: DisplayPort 1.2, Thunderbolt (up to 40 Gbps), USB 3.1 Gen 2 (up to 10 Gbps), Thunderbolt 2, HDMI, DVI and VGA supported using adapters (sold separately)

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Wireless	802.11ac Wi-Fi wireless networking, IEEE 802.11a/b/g/n compatible
Bluetooth	Bluetooth 4.2 wireless technology
Input	Space Grey Magic Keyboard with Numeric Keypad, Space Grey Magic Mouse 2, Optional Space Grey Magic Trackpad 2

Discount for academic institutions should be given, if any.

Separate rates should be quoted for extended warranty of 2 years in addition to standard warranty of one year. The last date of receiving sealed bids is February 15, 2019.

Sd/-

Director

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