Tender Fee Rs. 500/-
Bid security EMD Rs. 15,000/-

**Target Controlled Infusion System - 3 Nos.**

**Specifications**

**Syringe Infusion Pumps:** minimum 2 channels and provision to add more any time. Each channel will have the following specifications:

- Base/ console having a provision of a LCD/TFT display to show the Status of Infusions being given to Patient.
- Base can support TCI with normal syringe pumps or volumetric pumps up to eight simultaneously running pumps (Multichannel system).
- Upto 7 **pre-programmed** protocols can be stored
- Should be compatible with all anaesthetic drugs and brand of syringes
- Unit should offer inbuilt programs for hypnogenic drugs such as Propofol, Ketamine and analgesics such as Fentanyl, Remifentanil etc.
- Should be able to predict the drug concentration that will be delivered over time, in the Plasma or at the Effect-site (biophase).
- Should have facility to show the concentration level change over the next 15 minutes.
- Displays the 'end of effect' time for each anesthetic drug.
- Ability to select **Pharmacokinetic** models as per users choice or patient related issues.
- Should have facility for 2 channel relay programming.
- Displays the total dose and volume infused from the start of induction.

**Two Nos. syringe pumps (quote prices separately) also must have the following essential features :**

- Flow rate programmable from 0.1 to 1200 ml/h, 0.1 ml/h increment.
- Should work on syringe of 5,10,20,30,50/60 ml & with automatic syringe volume recognition.
- Should have Pressure limit selection from 100 to 1100 mmHg
- Automatic anti-bolus system to reduce pressure on sudden release of bolus will be essential.
- Volume limit must be 1 to 999.9 ml, 0.1 ml increment.
- Keep Vein open (KVO) must be 1ml/h,or programmed rate if lower than 1ml/h.
- Alarms for IV Line disconnection, Occlusion pressure, Pre- warning of occlusion alarm, preventive maintenance. End of Infusion, power failure etc.
- Syringe position control: syringe barrel clasp check; plunger detection; anti-siphon system check.
- Infusion control: syringe barrel clasp check; end of infusion pre-alarm; volume limit pre-alarm & alarm; KVO rate.
- Device control: disengaged driving mechanism alarm; low battery pre-alarm; discharged battery alarm; unconfirmed programming; technical malfunction alarm; (auto test; rotation); drive system advance check; watch dog check; RS 232 interface failure; unlocked module.
- Stackable design and any no of pumps can be stacked.
- Rechargeable NiMH type of battery having long life of about 5 hours @ 100 ml/hr. or more.
- Displays a measurement of approximate charge level as an indicator of remaining battery capacity.
- Pump should meet International quality standard i.e FDA/ER/ISO/CE/EN

**Warranty:** Comprehensive 5 years with CMC for 6 to 10 years after comprehensive warranty