



विक्रम विश्वविद्यालय, उज्जैन

(E-mail :- storevul1957@gmail.com मो.नं. 7000267757, 9425788123)

क्रमांक / भण्डार / 2025 / 130

दिनांक 08/08/2025

--: लेब उपकरण क्रय हेतु ई-निविदा वर्ष-2025 :-

PM USHA (MERU) Project के अंतर्गत विक्रम विश्वविद्यालय के विभिन्न अ.शा. /संस्थानों/लेब आदि हेतु लेब उपकरण क्रय किए जाने हेतु पंजीकृत निर्माता फर्म/अधिकृत विक्रेताओं से www.mptenders.gov.in के माध्यम से ई-निविदा आमंत्रित की जाती हैं। निविदा का अनुमानित मूल्य लगभग राशि रु. 29944100/- (रु. दो करोड नव्यानवे लाख चवालीस हजार एक सौ मात्र) है।

निविदा प्रकाशन की तिथि : दिनांक 13/08/25
आनलाइन टेण्डर फार्म : दिनांक 13/08/25 से 02/09/25 समय 17:30 तक
क्रय करने की तिथि
आनलाइन बिड भरने की तिथि : दिनांक 13/08/25 से 02/09/25 समय 17:30 तक
प्री-बिड मिटिंग तिथि : दिनांक 19/08/25 को दोपहर 03.00 बजे।
निविदा (तकनीकी बिड) : दिनांक 04/09/25 को दोपहर 11.00 बजे।
खोलने की तिथि
निविदा हेतु तकनीकी : दिनांक 08/09/25 को दोपहर 03.00 बजे।
समिति की बैठक

निविदा प्रपत्र का मूल्य : 10,000/- (रुपये दस हजार मात्र) वापसी योग्य नहीं।
(आनलाइन जमा करें) ऑनलाइन जमा कर रसीद संलग्न करें।
निविदा प्रतिभूति राशि (EMD) : 9,00,000/- (रुपये नौ लाख मात्र) ऑनलाइन जमा कर
(ऑनलाइन जमा करें) रसीद संलग्न करें।

नोट :- ई-निविदा में किसी भी प्रकार का शुद्धि पत्र/संशोधन/निविदा निरस्तीकरण की सूचना समाचार पत्र के माध्यम से नहीं की जावेगी इस संबंध में केवल [http:// www.mptenders.gov.in](http://www.mptenders.gov.in) और [http:// www.vikramuniv.ac.in](http://www.vikramuniv.ac.in) पर ही प्रकाशन किया जावेगा।

आदेशानुसार

कुलसचिव

विक्रम विश्वविद्यालय, उज्जैन

निविदा प्रक्रिया संबंधी जानकारी (भाग- 1)

1. निविदा प्रपत्र <https://www.mptenders.gov.in> से डाउनलोड किया जावे निविदा संबंधी जानकारी विक्रम विश्वविद्यालय की वेबसाइट www.vikramuniv.ac.in पर भी देखी जा सकती है।
2. लेब उपकरण क्रय संबंधी निविदा केवल www.mptenders.gov.in पर ऑनलाईन प्रस्तुत की जावे। निविदा में किसी प्रकार के संशोधन की सूचना या जानकारी केवल वि. वि. की वेबसाइट www.vikramuniv.ac.in एवं www.mptenders.gov.in पर ही दी जावेगी।
3. निविदा का अनुमानित मूल्य लगभग राशि रु. 29944100/- (रु. दो करोड नन्यानवे लाख चवालीस हजार एक सौ मात्र) है।
4. यदि तकनीकी निविदा निर्धारित तिथि को नहीं खोली जाती है तो निविदा आगामी कार्य दिवस पर दोपहर 3.00 बजे खोली जावेगी। निविदा प्रपत्रों की जांच विश्वविद्यालय की तकनीकी समिति द्वारा की जावेगी। (निविदाकार या उनके प्रतिनिधि निविदा प्रपत्रों की जांच के समय तकनीकी समिति की बैठक में उपस्थित रह सकते हैं।)

प्रक्रिया-1. निविदा प्रपत्र का मूल्य रु. 10000/- (रु. दस हजार मात्र) है। निविदा प्रतिभूति राशि (EMD) रु. 9,00,000/- (रुपये नौ लाख मात्र) है। दोनों प्रकार की राशि ऑनलाईन जमा कर रसीदों को निविदा के साथ अपलोड किया जाना है। उक्तानुसार निविदा प्रपत्र का मूल्य एवं प्रतिभूति राशि प्राप्त होने पर ही फर्म को प्रक्रिया-2 के लिए योग्य माना जावेगा।

प्रक्रिया-2 प्रक्रिया-1 में योग्य पाई जाने वाली फर्म की ही तकनीकी निविदा खोली जावेगी। तकनीकी निविदा में दर्शित दस्तावेज फर्म की सील एवं हस्ताक्षरित स्कैन कर अपलोड किये जावें।

प्रक्रिया-3 प्रक्रिया-2 में योग्य पाई जाने वाली फर्मों की ही वित्तीय निविदा खोली जायेगी। वित्तीय निविदा भी ऑनलाईन प्रस्तुत की जाना है।

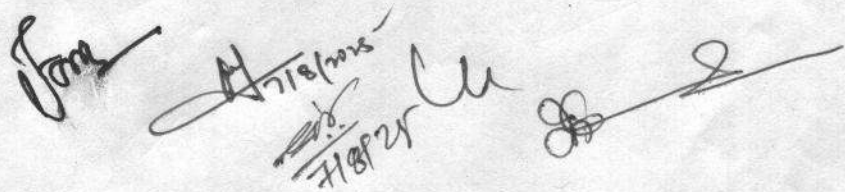
- नोट :-
1. निविदाकार द्वारा निविदा प्रपत्र एवं निविदा के साथ संलग्न किए जाने वाले समस्त दस्तावेज शपथ पत्र आदि हस्ताक्षरित कर एवं सील सहित स्कैन कर आनलाईन अपलोड किए जावे।
 2. निविदा में उल्लेखित शर्त अनुसार समस्त दस्तावेजों को अनुक्रमणिका (Index) बनाकर अपलोड किए जाए।



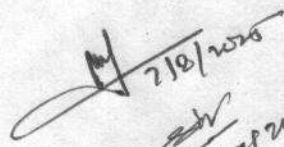
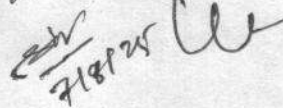
विक्रम विश्वविद्यालय, उज्जैन

निविदा की तकनीकी शर्तें (भाग- 2)
(दस्तावेज आनलाइन अपलोड किए जायें)

1. निविदा प्रपत्र का मूल्य 10000/- (रु. दस हजार मात्र) की जमा रसीद आनलाइन संलग्न करें।
2. निविदा प्रतिभूति राशि (EMD) रु. 9,00,000/- (रुपये नौ लाख मात्र) की रसीद आनलाइन संलग्न करें।
3. म.प्र. के MSME पंजीकृत फर्मों को EMD एवं निविदा प्रपत्र से छूट की पात्रता होगी।
4. अनुभव:- फर्म द्वारा पिछले 05 असेसमेंट वर्षों (2020-21, 2021-22, 2022-23, 2023-24, 2024-25) में किसी भी शासकीय/अर्द्धशासकीय/UGC द्वारा मान्यता प्राप्त संस्थाओं में लेब उपकरण प्रदाय का कार्यादेश की प्रतिलिपियाँ एवं प्रमाणपत्र संलग्न करें।
 - (4.1) निविदाकर्ता के पास निविदा के अनुमानित मूल्य का न्यूनतम 35 प्रतिशत राशि का एक कार्यादेश हो। (35 प्रतिशत राशि का कार्य किया गया हो।) या
 - (4.2) निविदाकर्ता के पास निविदा के अनुमानित मूल्य के न्यूनतम 20 प्रतिशत राशि के 02 कार्यादेश हों। (20-20 प्रतिशत राशि के कार्य किए गए हो।) या
 - (4.3) निविदाकर्ता के पास निविदा के अनुमानित मूल्य के न्यूनतम 15 प्रतिशत राशि के 03 कार्यादेश हों। (15-15 प्रतिशत राशि के कार्य किए गए हो।)
5. टर्न ओवर:-
 - (5.1) OEM वार्षिक टर्नओवर:- लगभग रु. 12 करोड़ (बारह करोड़) हो।
 - (5.2) BIDDER वार्षिक टर्नओवर:- लगभग रु. 90,00,000/- (नब्बे लाख मात्र) हो।टर्नओवर की चार्टर्डेड अकाउंटेंट से हस्ताक्षरित प्रमाणपत्र संलग्न किए जाए।
6. बेलेन्स शीट:- उक्त 05 असेसमेंट वर्षों (2020-21, 2021-22, 2022-23, 2023-24, 2024-25) की बेलेन्स शीट प्रस्तुत करना अनिवार्य है। CA द्वारा सील एवं हस्ताक्षरित/प्रमाणित दस्तावेज संलग्न किए जाए।
7. आयकर रिटर्न:- आयकर असेसमेंट वर्ष (2020-21, 2021-22, 2022-23, 2023-24, 2024-25) के आयकर रिटर्न की छाया प्रति संलग्न करें।
8. निविदाकर्ता फर्म किसी भी शासकीय/अर्द्धशासकीय संस्था से कभी भी ब्लेक लिस्टेड न हो इस हेतु निविदाकर्ता को मूल शपथ पत्र प्रस्तुत करना अनिवार्य है। जो रु. 500/- के स्टाम्प पर (नोटराइज्ड) हो। शपथ पत्र का प्रारूप संलग्न है।
9. फर्म द्वारा जी.एस.टी. (GST) की प्रति संलग्न करें।
10. आयकर (PAN) नंबर की प्रति संलग्न करें।

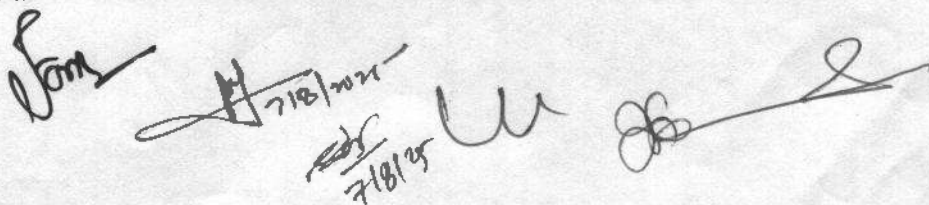
The block contains several handwritten signatures and stamps. One signature is clearly legible as 'H. G. Sharma'. Below it, there is a date stamp '11/08/24'. To the right, there is another signature and a circular stamp.

11. संस्था/फर्म/कम्पनी का वैध रजिस्ट्रेशन प्रमाण पत्र संलग्न किया जावे।
12. निविदाकर्ता फर्म द्वारा अद्यतन/वैध ISO प्रमाण पत्र की छाया प्रति संलग्न करें। साथ ही स्पेसिफिकेशन में दर्शाये गये Certifications के विस्तृत प्रमाण पत्रों की छाया प्रतिया भी संलग्न करना अनिवार्य है।
13. निविदाकर्ता को इस आशय का प्रमाण पत्र भी संलग्न करना होगा की उनके द्वारा न्यूनतम 03 वर्षों की गारंटी/वारंटी प्रदान की जावेगी।
14. निविदाकर्ता के पास उक्त निविदा के संबंध में कम्पनी द्वारा प्रदाय किया गया वैध Authorization प्रमाण पत्र होना अनिवार्य है। प्रमाण पत्र आवश्यक रूप से संलग्न किया जाए। प्रमाण पत्र पर Authorize करने वाले अधिकृत अधिकारी का Email id एवं मो.नं. आवश्यक रूप से अंकित हों।
15. निविदा के भाग-4 में अंकित स्पेसिफिकेशन अनुसार फर्म द्वारा लेब उपकरण के ब्रोशर आवश्यक रूप से संलग्न किया जाए। (पेज नं. सहित) ब्रोशर के अभाव में निविदा अमान्य की जावेगी।
16. फर्म का म.प्र. में सर्विस सेन्टर आवश्यक रूप से हो इस हेतु प्रमाण-पत्र संलग्न किया जाए।
17. निविदाकर्ता को लेब उपकरण का गारंटी/वारंटी प्रमाण पत्र भी देना आवश्यक है।
18. निविदाकर्ता को लेब उपकरण संबंधी निर्माता कंपनी/अधिकृत डीलर होने का प्रमाण पत्र संलग्न करना आवश्यक है।

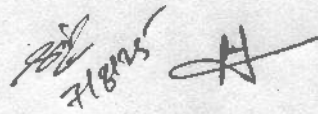
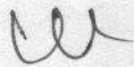

21/08/2020
21/8/20

विक्रम विश्वविद्यालय, उज्जैन
निविदा की सामान्य शर्तें (भाग- 3)

1. अपात्र फर्मों की धरोहर राशि सफल निविदाकार की दरें मान्य होने के पश्चात आनलाइन लौटा दी जावेगी।
2. सफल निविदाकार को संविदा मूल्य का 03 प्रतिशत राशि परफारमेंस ग्यारंटी (निष्पादन प्रतिभूति राशि) जमा करानी होगी। निष्पादन प्रतिभूति की राशि वि.वि. के खाते में आनलाइन माध्यम से या किसी भी वाणिज्यक बैंक के DD, FDR, Bankers cheque एवं irrevocable बैंक ग्यारंटी के रूप में जमा करानी होगी। प्रस्तुत बैंक ग्यारंटी का सत्यापन संबंधित बैंक से कराया जावेगा।
3. निष्पादन प्रतिभूति (परफारमेंस ग्यारंटी) आपूर्तिकर्ता की सभी संविदाकृत बाध्यताओं के पूरा होने की तारीख के बाद 60 दिवस की अवधि के लिए वैध होना आवश्यक है।
4. प्रदाय किए गए लेब उपकरण निविदा में उल्लेखित Specification के अनुसार नहीं होने पर भुगतान नहीं किया जावेगा।
5. सफल निविदाकर्ता को वि.वि. के साथ एक अनुबंध संपादित करना होगा। अनुबंध की शर्तों का उलंघन करने पर परफारमेंस ग्यारंटी जब्त की जा सकेगी।
6. भुगतान के समय नियमानुसार कर्शों की कटौती की जावेगी।
7. लेब उपकरण प्रदाय के पूर्व किसी भी प्रकार का अग्रिम भुगतान नहीं किया जावेगा।
8. निर्धारित समय में लेब उपकरण की आपूर्ति नहीं करने पर म.प्र. भण्डार क्रय एवं सेवाउपार्जन नियम 2015 (यथा संशोधित 2022) नियमानुसार राशी कटौती कर भुगतान किया जावेगा।
9. प्रदाय किए गए लेब उपकरण की गुणवत्ता एवं स्पेसिफिकेशन का परीक्षण तृतीय पक्ष जांच एजेंसी (किसी भी शासकीय एजेंसी) के सत्यापन के उपरांत ही किया जाएगा। सत्यापन हेतु जांच एजेंसी को किया जाने वाला भुगतान संबंधित फर्म द्वारा ही वहन किया जावेगा। इसके पश्चात ही भुगतान संबंधी कार्यवाही की जावेगी।
10. निर्धारित तिथि एवं समय के पश्चात निविदा संबंधी किसी भी प्रकार के दस्तावेज स्वीकार नहीं किए जाएंगे।
11. लेब उपकरण विश्वविद्यालय में प्रदाय करने एवं निर्धारित स्थान पर Install करने की सम्पूर्ण जिम्मेदारी सम्बंधित फर्म की होगी।
12. लेब उपकरण हेतु निर्धारित बजट आवश्यक्तानुसार घटाया या बढ़ाया जा सकता है। तथा क्रय किए जाने वाले लेब उपकरणों की संख्या का उल्लेख क्रय आदेश में किया जावेगा।
13. निविदा पर किसी भी प्रकार का अंतिम निर्णय विश्वविद्यालय कुलगुरु का होगा।

The block contains several handwritten signatures in black ink. There are also some handwritten numbers and dates, including '7/8/22' and '7/8/23', interspersed with the signatures.

14. निविदा संबंधी किसी प्रकार के विवाद की स्थिति में न्यायालयीन क्षेत्राधिकार जिला उज्जैन होगा।
15. लेब उपकरण का प्रदाय सन्तोषजनक न होने या सफल निविदाकर्ता द्वारा शर्तों का पालन नहीं करने की स्थिति में सफल निविदाकर्ता का कार्य आदेश विक्रम विश्वविद्यालय, उज्जैन द्वारा किसी भी समय बिना किसी पूर्व सूचना के निरस्त किया जा सकता है एवं प्रतिभूति राशि (EMD) एवं निष्पादन राशि जब्त की जावेगी। इसमें जो भी अर्थिक हानि होगी उसकी वसूली स्वीकृत निविदाकर्ता से की जावेगी। ऐसी परिस्थिति में भुगतान से कटौती का अधिकार कुलसचिव विक्रम विश्वविद्यालय, उज्जैन के विवेकाधिकार पर सुरक्षित रहेगा।
16. लेब उपकरण स्वीकृत स्पेसिफिकेशन के अनुसार प्रदाय करने पर ही स्वीकार की जावेगी। आदेशित सामग्री स्पेसिफिकेशन अनुरूप न होने या निर्धारित गुणवत्ता से कम होने पर सफल निविदाकर्ता को उनके व्यय पर वापस की जावेगी। लेब उपकरण डुप्लीकेट या मूल निर्माता कम्पनी की न होने पर निविदाकर्ता पर नियमानुसार कार्यवाही की जावेगी।
17. निविदाकर्ता द्वारा वित्तीय निविद में लेब उपकरण की वित्तीय दर समान होने पर जिस निविदाकर्ता का टर्न ओवर अधिक होगा विश्वविद्यालय द्वारा उस निविदाकर्ता फर्म का चयन किया जावेगा। इस संबंध में किसी का दावा/आपत्ति मान्य नहीं होगी।
18. वित्तीय निविदा में लेब उपकरण का इन्स्टोलेशन, माल भाड़ा, आवश्यकतानुसार प्रशिक्षण सम्बंधी व्यय सम्मिलित कर प्रस्तुत करें। पृथक से अन्य किसी व्यय का भुगतान विश्वविद्यालय द्वारा नहीं किया जावेगा।



आदेशानुसार

कुलसचिव

सहमति पत्र
(निविदाकर्ता द्वारा भरा जावे)

प्रति,
कुलसचिव
विक्रम विश्वविद्यालय,
उज्जैन (म.प्र.)

विषय :- PM USHA (MERU) Project के अंतर्गत विक्रम विश्वविद्यालय के विभिन्न अ.शा.
/संस्थानों/लेब आदि हेतु लेब उपकरण क्रय किए जाने हेतु ई-निविदा वर्ष 2025 बाबत।

महोदय,

उपरोक्त विषयान्तर्गत निवेदन है कि हमारी संस्था की जानकारी निम्नानुसार है।

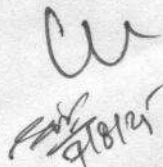
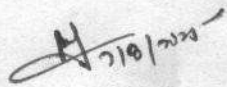
1. निविदाकार/फर्म/ संस्था का नाम :
2. पत्र व्यवहार का पता :
.....
3. फर्म के प्रतिनिधि का नाम :
4. पद नाम :
5. दूरभाष क्र./फैक्स/ई-मेल
अ) लेण्ड लाईन न. :
ब) फैक्स नं. :
स) ई-मेल :
द) मोबाईल नं. :

प्रमाणीकरण

प्रमाणित किया जाता है कि निविदा के भाग 1, 2, 3 तथा 4 में उल्लेखित शर्तों के अनुसार विश्वविद्यालय में उपकरण प्रदाय करने हेतु सहमति प्रदान की जाती हैं। समस्त निविदा प्रपत्रों पर फर्म के हस्ताक्षर एवं सील लगा दी गई है। तथा अनुक्रमाणिका बनाकर दस्तावेज आनलाइन अपलोड कर दिए गए हैं।



फर्म के अधिकृत प्राधिकारी के हस्ताक्षर/नाम एवं सील

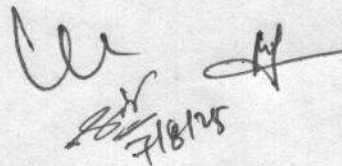


—ःशपथ-पत्र का प्रारूपः—
(रु 500 के स्टाम्प पर नोटराइज्ड)

मैं.....द्वारा प्रोपराइटर/मेसर्स.....

निम्नानुसार कथन कर शपथ लेता हूँ :-

1. यह कि फर्म को कभी भी किसी भी शासकीय संस्था/उपक्रम से ब्लेक लिस्टेड नहीं किया गया है।
2. यह कि फर्म का निविदा में दिए गए उपकरण के संबंध में कोई कानूनी विवाद नहीं है न ही फर्म को किसी भी प्रकार का कोई दंड अधिरोपित किया गया है।
3. यह कि फर्म को कभी भी किसी भी शासकीय संस्था/उपक्रम/बैंक द्वारा दिवालिया घोषित नहीं किया गया है।
4. यह कि फर्म द्वारा निविदा में उल्लेखित शर्त अनुसार चाहे गए दस्तावेज/अभिलेख पूर्णतः सत्य एवं प्रमाणिक है तथा इनमें किसी भी प्रकार की कोई कूट रचना नहीं की गई है।
5. यह कि निविदा में प्रस्तुत अथवा शपथ पत्र में पाई गई जानकारी असत्य पाए जाने पर निविदा निरस्त करने प्रतिभूति राशि (EMD) एवं निष्पादन राशि जब्त करने एवं फर्म को ब्लेक लिस्ट करने का अधिकार विक्रम विश्वविद्यालय, उज्जैन को होगा।



विक्रम विश्वविद्यालय, उज्जैन

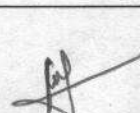
वित्तीय निविदा प्रपत्र वर्ष-2025
(ऑनलाईन भरा जाये)

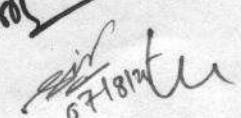
उपकरणों की सूची

क्रं.	उपकरण का विवरण	प्रति नग उपकरण की दर समस्त कर सहित
01	Micropipette	
02	Glucometer	
03	Oxymeter	
04	All purpose equipment with all attachments like granulator, mixer, lubricator, polishing pan, coating pan, milling etc.	
05	Deep freezer	
06	Lyophilizer	
07	Small Fluid bed dryer	
08	Laboratory Fermantor	
09	Rotary Vacuum Evaporator	
10	Probe Sonicator	
11	Fluorescent microscope	
12	Digital Portable Tablet Hardness Tester	
13	vertical Gel electrophoresis with all accessories	
14	UV eluminator	
15	Distillation unit (steel)	
16	Water bath	
17	Hot plate	
18	Laminar air flow	
19	-80 degree deep freezer	
20	BodyTemperatureSensor	
21	Shaker incubator	
22	BloodPressureSensor	
23	Refrigerator	

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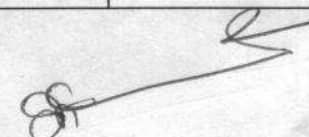
24	Weighing scale (Max. Capt. 150 Kg.)	
25	Laboratory Oven	
26	Power supply unit for electrophoresis	
27	Vernier water depth sampler	
28	Kemmer water depth sampler	
29	Sieve shaker 220-230 V with all accessories	
30	Microwave	
31	Conductivity meter	
32	Under water soil sampler	
33	Water analysis kit	
34	DSLR Camera (For field photography & Microbiology)	
35	Mini fermentor (Industrial)	
36	Air Lift glass Bioreactor	
37	Column chromatography	
38	ELISA READER	
39	Plant growth chamber	
40	RT PCR with all accessories	
41	Fluorescence microscope with all accessories	
42	Laboratory Homogenizer	
43	Flame Photometer	
44	μ Controller Based Visible Single Beam Spectrophotometer	
45	Spectrophotometer	
46	ELECTRONIC BALANCE	
47	POTENTIOMETER (DIGITAL)	
48	Horizontal Laminar Air Flow Cabinets 3×2×2 Feet	
49	Laboratory Centrifuge	
50	Electrophoresis system Vertical With complete accessories and Power supply	
51	PCR Machine With complete accessories)	
52	PCR Machine	






53	Research Microscope	
54	Water Incubator Shaker	
55	Water Bath Incubator Shaker	
56	Rotary Shaker	
57	Centrifuge	
58	Compound Microscope	
59	Auto Clave	
60	Shaker Machine	
61	Distillation Unit	
62	Water Bath	
63	Digital Hot Plate	
64	BOD Meter	
65	Spectrophoto meter	
66	Coal Petrological Microscope	
67	Bomb calorimeter	
68	blood group test kit	
69	Electrophoresis apparatus	
70	Polarizing Microscope	
71	Furnace	
72	Zoom stereo Microscope	
73	Florescent microscope	
74	High speed centrifuge	
75	PCR	
76	Micropipette	
77	Cold mini centrifuge	
78	Gel documentation uvtransilluminator	
79	Power supply unit for electrophoresis	
80	Electrophoresis apparatus	
81	gel documentation uvtransilluminator	



 7/10/24

82	HOT air oven	
83	Incubator with shaker	
84	BiomerieuxVitek 2 Compact Analyzer	
85	Bio safety cabinet (Laminar air flow)	
86	Forensic kit crime scene	
87	Fingerprint developer kit	
88	Male and Female skeleton	
89	UV cabinet	
90	Thermal PCR	
91	Cold mini centrifuge	
92	DNA sequencer	
93	Laboratory Water bath 12 Station	
94	Digital Friability Test Apparatus	
95	Filtration assembly (stainless Steel) With vacuum pump	
96	Incubator	
97	Hot Air Oven	
98	Laboratory hot plate	
99	Colorimeter	
100	Digital weighing machine	
101	double door frost free refrigerator	
102	Binocular microscope with camera	
103	Binocular Microscope	
104	Heating Mantle of Various Size	
105	Dry Oven	
106	Auto analyzer (Blood test)	
107	Microscope with CC TV camera (screen display)	
108	Colony counter machine (microbiology	
109	Refrigerated Centrifuge	
110	DISSECTING MICROSCOPE	

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111	ESR Analyser	
112	Binocular Forensic Microscope	
113	Autoclave	
114	Water for HPLC Grade Preparation Unit	
115	Distillation unit	
116	Digital pH Meter	
117	HPLC Grade Water Preparation Unit	
118	BOD Incubator	

नोट:- उपकरणों का विस्तृत विवरण Detailed Specification में दिया गया है।

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प्रस्तुतकर्ता
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Detailed Specifications

Vikram University, Ujjain (MP)

List of Laboratory Equipment with Specification to be procured under PM-USHA (MERU) Project

S.No.	S No. As per DPR	Name of the Equipment	Specification	Quantity	Cost per unit in INR including tax
1	3	Micropipette	Volume Range 1-10 µl 10-100 µl 100-1000 µl 1-10 ml Accuracy $\pm 2.5 - 1.0\% \pm 1.8 - 0.8\% \pm 1.5 - 0.6\% \pm 2.5 - 0.6\%$ Repeatability $\leq 1.5 - 0.4\% \leq 0.5 - 0.15\% \leq 0.3 - 0.15\% \leq 0.3 - 0.15\%$ Sterilization Autoclave at 121°C for 20 Minutes Package Content 1 x Micropipette, 1 x Calibration Key, 1 x Instruction Manual, 1 x Quality Assurance Form, 1 x Bag of Pipette Tip(s) Package Type Cardboard Box	10	
2	4	Glucometer	Included Components Glucometer Special Feature Charging Indicator Mounting Type Wall Mount Number of Items 1 Power Source Corded Electric Item Weight 1 Grams Net Quantity 1.00 Count	2	
3	5	Oxymeter	Number of Batteries 2 AAA batteries required. Battery Life 720 Hours	2	
4	8	All purpose equipment with all attachments like granulator, mixer, lubricator, polishing pan, coating pan, milling etc.	Motor Drive: the motor drive is equipped with a DC motor (500 Watts, max, speed of 3.500 rmp, 60 % performance rating). Electronic speed control variable between 0 & 400 rmp. Attachments: Coating pan, wet granular homogenizing Agitating.	1	
5	9	Deep freezer	Internal Volume (Liters): 400, Internal Dimensions W x D x H (mm): 640 x 755 x 830, External Dimensions W x D x H (mm): 800 x 975 x 1420, Minimum Temperature: -40°C (AC room), Insulation (CFC free polyurethane foam): 80 mm minimum for Body & 80 mm for Door, Temperature control: Microprocessor, Display: 1" - 7 Segment, Big Size LED, Power Failure Alarm: Visual Alarm, Door Open Alarm: Audio Alarm in case door open for over one minute, Internal Body Material: Stainless Steel - 316 grade (GMP Models), External Body Material: Stainless Steel - 304 grade (GMP Models),	1	

6	10	Lyophilizer	Noise Level: Less Than 65 dB(A), Voltage Stabilizer: 220-240 volts, 50Hz, Single Phase Dryer Area 0.125 square meter Pressure control Automatic Ice condenser performance (L/24hr) 3 Ice capacity (max) 3 liter Plate Load Capacity 1 liter Height (millimeter) 400-800 Cold Trap Size (millimeter) 215160 Length (millimeter) 500-1000, Width (millimeter) 400-600 Suitable for pharmaceutical, chemicals, food & allied industries. Best way to dry granules & powders, quickly, uniform & economically, size available 30 kg. Drying Capacity Inlet Air Handling Unit: This unit will provide conditioned air to process your product Bottom chamber with inlet Air plenum, Gun chamber with removal nozzle fixing arrangement, product container with Wurster column distribution plate, Sampling port etc. Retarding chamber Expansion chamber with light sight glass. Top chamber with filter bag & shaking cylinder mounted on the top. Spare product container with distribution plate, Sampling port etc. For drying Granulation. Spare retarding Expansion chamber with Top Spray Port Nozzle fixing arrangement, Light sight glass Exhaust Air Fan- to keep the process in a fluidized bed Ducting Both inlet & Exhaust ducting with dampers. Automation Controls (PLC): All Pneumatic & Electric controls with various receipes and levels to provide you with reproducibility, reliability, accuracy and cGMP	1	
7	11	Small Fluid bed dryer	Peristaltic Pump for spraying liquid on your product. Control Panel Display: Digital Fermenter vessel material: Glass Heating Arrangement: Electric heating finger Temperature control: Electronic pH controller provided: Yes Agitator Provided: Yes Side Neck in Fermentor vessel: 5 Minimum Culture volume in Fermenter vessel (in ML): 500 milliliter	1	
8	12	Laboratory Fermentor		1	

9	13	Rotary Vacuum Evaporator	Maximum Culture volume in Fermenter vessel (in ML) 1500 milliliter Overall Weight (in Kg):10 kilogram Power Consumption:200 Watt Display size:3 inch Display type:LCD Control Accuracy:±1 degree celsius Heating Bath material:Stainless Steel AISI 316L Heating Bath Capacity:5 liter Timer: Yes Cooling Surface,cm2:1400 Vacuum Controller Integrated:Yes Heating Bath Controller:Electronic Lift:Motor Rotation Speed,rpm:20-280 Vapour Display Temperature Provided:Yes Accessories Evaporating Flask ,Receiving Flask ,Foam Brake , Vertical Glassware Features ground-free condenser design with grease free ,Low Noise ,Overheating protection ,Smooth Start Warranty:1 year	1	
10	14	Probe Sonicator	Real time digital display of parameters:Processing time ,Pulse on/off time ,Temperature Number of replaceable tip included in the offer:1 Additional Items:Titanium probe ,Sound enclosure box Integrated and automated temperature controller with sensor or temperature probe:No Power:650 Watt Microprocessor based and programmable controller :with touch pad Basic tool kit for assembly of mechanical parts is included in the offer:Yes Variable Frequency (Khz):24,99:Fixed Frequency (kHz):20 Availability of ISO certification of manufacture:Yes Conformity to standard for electrical safety:Yes Product standard certification:NA Manufacturers quality standard:ISO 9001	1	



11	15	Fluorescent microscope	Specifications: • Binocular/Trinocular Head: Inclined At 30 Degree And Interchangeable For Monocular Or Straight Tube For Microphotography • Optional System: Infinity Color Corrected With DIN Standard Optics • Eyepiece: Ultra Wide Field In Compensating WF 10X Paired Eyepiece • Objective: Antifungal Infinity Color Corrected Fluorescent Objective 4X, 10X, 20X, 40X & 100X • Stand: Focusing By Low Set Coaxial Drive, Knobs For Coarse And Fine Adjustment • Stage: Super Hard Coated With A Low Position Co-Axial X-Y Motion Controls X-Y Motion 75 mm X 50 mm • Illumination: Koehler With 6V X 30W Super Bright Halogen Lamp With Variable Control • Nose Piece: Reverse Revolving Quintuple Nose-Piece With Ball Bearing System For Perfect Alignment • Focusing: Co-Axial Course And Fine Supported On Ball Bearing With Tension Controlling And Pre Focus Stopper • Coarse Focus: 24 mm • Fine Motion Reading: To 0.002 mm • Reflected Light Source: Blue Excitation BP 460-490, Green Excitation BP 510-550 • Lamp: 100 W HBO Ultra Hi-Voltage Spherical Mercury Lamp • Protection Barrier: Barrier To Resist The Ultraviolet Light	
12	16	Digital Portable Tablet Hardness Tester	Portable Instrument which can measure the Breaking Point of Tablets. The tester measures the Compressive Force with an Accuracy of $\pm 0.5\%$ and Measures and Displays the Peak Force used to Fracture the Tablets. The instrument also reduces unnecessary costs to produce tablets out of Specified Hardness Range. Display of 10 Test Values and Calculate the Average of Memorized Values. Tablet Range: 2 ~ 28 mm, Accuracy: $\pm 0.5\%$ of F.S.D, Sensor Type: Sensor Inside, Display Units: N, Kgf, Lbf, Display: LCD Screen Display with Backlit, Power Adapter: Input : 230 V AC 50Hz Output : 12V DC 300mA, Capacity: 500 N, PC and Printer Connectivity through RS-232 Port, Programmable Upper (T1) & Lower (T2) Tolerance Limits, LCD Screen Display with Backlit, Standard Accessories : Power Adaptor, Acrylic Glass Safety Cover, Disposal Container, Cleaning Brush, Storage Case, Optional Accessories : IQ, OQ, PQ Documents, Calibration Ring Weight with Hook, PC Software, Thermal Printer	5

13	77	vertical Gel electrophoresis with all accessories	VERTICAL SINGLE PLATE MINI GEL ELECTROPHORESIS SYSTEM TV50 Product Code: TV50 GRM and integral lower buffer chamber - One Lid - 2 plain glass plates of dimension- 10 x 10 cm (W x H) - 2 Spacers of 1 mm thickness - 2 Spacer aligners - 2 notched glass plates of dimension- 10 x 10 cm and - One 12-sample comb of 1 mm thickness	2
14	79	UV illuminator	1. UV Wavelength: Typically specified in nanometers (nm), common wavelengths include UVA (315-400nm), UVB (280-315nm), and UVC (100-280nm). 2. Power Output: Measured in watts (W) or milliwatts (mW), indicating the strength of the UV light emitted. 3. Beam Angle: The angle over which the UV light is dispersed, often measured in degrees. 4. Power Source: Whether it operates on mains electricity, batteries, or other power sources. 5. Dimensions: Physical size and shape of the UV illuminator. 6. Operating Temperature Range: The range of temperatures within which the illuminator can operate effectively. 7. Material: Construction materials, especially those that need to be UV-resistant or suitable for specific environments. 8. Control Interface: Whether it has manual controls, remote control capabilities, or interfaces with other systems. 9. Safety Features: Such as overheating protection, automatic shut-off, or shielding to prevent exposure to UV light. 10. Certifications: Compliance with relevant safety standards or regulations.	2
15	81	Distillation unit (steel)	Distillation Water Capacity (LPH)8 Built in Quartz Heater Capacity8.5 kiloWatt	2
16	83	Water bath	Type of Product-High Precision Water Bath Capacity-62 L Dimension-Inner: 450 x 375 x 375 mm Inner Material-Stainless Steel Application Area-Research Labs; Bio-Tech Labs, Scientific Labs Outer Material-Mild Steel Sheet Item Code-NSAW-1245 Coating-Duly Epoxy Powder Coated	2

17	85	Hot plate	Ambient Temperature -99°C + 0.5°C	Plate design Rectangular and Round Temperature Up to 300°C Heating plate surface Stainless Steel 304 / Mild Steel / Cast Iron Cabinet MOC Powder coated MS Controller Thermostatic controller Power supply 220 Volts 50Hz Optional Digital temperature controller Temperature up to 500°C	2	
18	87	Laminar air flow		Specifications: • Motor: ¼ hp motor with centrifugal blower assembly • Filtration: through Hepa and pre filter • Fitted with ultra violet tube • Fluorescent light illumination • Manometer • Gas cock assembly • Thick acrylic front and side panels • Outer body made of thick mild steel duly powder coated • Platform made of stainless steel	2	
19	89	-80 degree deep freezer		Laboratory Deep Freezer (- 80 Degree C) Specification Application Mild Steel Product Type freezer Power 2000 W Watt (w) Type Stainless Steel Voltage 230 V AC Volt (v) Size Range 1230 x 996 x 2056 Capacity 4 Cu ft., 6 Cu ft., 10 Cu ft., 12 Cu ft. Milliliter (ML) Material Mild Steel / stainless Steel 304 Warranty 12 months Unit Type Piece/Pieces Brand Name U-Tech	2	

20	90	Body Temperature Sensor	Infrared technology ensures temperature measurement without touching, minimizing cross-infection risks. Advanced infrared technology and high precision sensor provide accurate readings in just 1 second, with temperature measurement accuracy within $\pm 0.4^{\circ}\text{F}$. Measurement distance ranges from 0.4 to 1.96 inches.	40	
21	91	Shaker incubator	Product Specification Usage/Application Laboratory Color Blue Size 25 Flasks x 250 ml Number Of Shelves 2 Shelves Temperature Range 5 To 60 Degree C Voltage 230 V AC Frequency 50 Hz Material Mild Steel Power 500 W	2	
22	92	Blood Pressure Sensor	Pressure range: 0 mmHg to 258 mmHg Maximum pressure without permanent damage: 1550 mmHg Typical accuracy: ± 1 mmHg Temperature compensated: -20°C to 85°C Sensing element: SSCMRN00SPGAA5 Combined linearity and hysteresis: typical $\pm 0.25\%$ Response time: 1 millisecond	12	
23	96	Refrigerator	Technical Details Capacity 363 litres Annual Energy Consumption 245 Kilowatt Hours Per Year Refrigerator Fresh Food Capacity 275 litres Freezer Capacity 88 Litres Bottle Count 10 Installation Type Freestanding Part Number RT39C553EBX/HL Form Factor Convertible Special Features Energy Efficient, Inverter Compressor, Frost Free, Automatic Defrost, Large Capacity, Touch Control, Digital Temperature Control, Door Ajar Alarm, Low Noise, Adjustable Shelves	4	

			Colour: Blue Black Voltage 230 Volts Number of Drawers 1 Defrost System Frost Free Door Orientation Left Door Material Stainless Steel Shelf Type Toughened Glass Number of Shelves 2 Certification Energy Star Material Stainless-Steel Included Components 1 Refrigerator, 1 User Manual, 1 Warranty Card Batteries Required No			
24	132	Weighing scale (Max. Capt. 150 Kg.)	Electronic Weighing Scale brand with load capacity of 150 kg Type of Electronic Weighing Machine electronic weighing scale platform Rated Load/ Capacity(kg) 150 kg Resolution(gms) 20 g Class type Class-III Display led Number of Display single Speed of measurement 1 second	2		
25	150	Laboratory Oven	Specifications • Capacity 250 Litre. • Temp range: +5°C to 200°C. • Control accuracy: ±0.5°C. • Uniformity: ± 2.0 at 100.0°C • Minimum 3 No. of Shelves with height adjustable in 25mm steps. • Glass window in-built into the door for easy viewing of samples. • Automatic cut off of heater & blower when door opened. • Digital PID temperature controller with timer, alarms and auto tuning. • Aero dynamic internal design for achieving horizontal air circulation. • Solid and plain bottom without electricals. • Outer body made of G.I Epoxy Coated • Inner body made of Stainless steel with clear bottom • CE certified. • Warranty period (minimum 1 year) to be mentioned. • AMC charges to be indicated.	1		
26	152	Power supply unit for electrophoresis	Output range : 10-300 V, fully adjustable in 1 V steps, 1-400 mA fully adjustable in 1 mA steps Type of output : Constant voltage or constant current Output terminals : 4 pair recessed banana jacks in parallel Timer : 1 min-999 min , fully adjustable Start /Stop Function : Yes Display : 3-digit LED	2		

27	153	Vernier water depth sampler	Operating conditions : 0-40°C, 0-99% humidity in the absence of condensation Safety features : No-load detection, sudden load change detection, overload/short-circuit detection, Input protection : Fuse on both hot and neutral Input power (actual) : 220 VAC/50hz Instruction Manual : 1 No. Warranty Card : 1 No		
28	154	Kemmer water depth sampler	Description Water Depth Sampler Grade High School and College Diameter (English) Outside 4.25 in. Length (English) 17.87 in. Includes 50 ft. nylon drop cord For Use With (Application) Collect water samples from any desired lake depth Diameter (Metric) Outside 10.9 cm Length (Metric) 45.2 cm Kemmer water depth sampler Specifications & Description • Material Stainless Steel • Sample Volume 1.2 L • Bottle Type 304 Stainless Steel • Description Kemmer Water Sampler, 304 SS, 1.2 L, 3 to 600 ft depth • Warranty 3 month	2	1
29	155	Sieve shaker 220-230 V with all accessories	Layer : 1 to 8 Layers Material: Stainless Steel Power: Electronic Sieving Diameter: 200 to 300 mm		1
30	156	Microwave	convection microwave oven (32 L)		3
31	157	Conductivity meter	Specifications for this item Colour Off White Item Weight 500 grams Number of Items 1 Size Standard		1
32	158	Under water soil sampler	Technical Details Product Dimensions 30.48 x 22.86 x 5.08 cm; 1.07 Kilograms		1

33	159	Water analysis kit	Large LCD to display respective parameters Battery level, ATC & Temperature pH: -2 - 16.00 TDS: 0 - 1300 ppm 1.30 - 13.00 ppt Cond: 0 - 2000 μS 2.00 - 20.00 mS pH: 0.01 pH, mV: 1 mV, TDS: 1 ppm/0.01 ppt, Cond.: 1 μS/0.01 mS, Temp.: 0.1 $^{\circ}$C/$^{\circ}$F, Salt: 1 ppm/0.01 ppt pH: $\pm$ 0.01 +1 Digit, mV: $\pm$ 2 +1 Digit, TDS/Cond/Salt: $\pm$ 2% of F.S., Temp: $\pm$ 0.2 $^{\circ}$C +1 Digit Automatic Temperature Compensation (ATC) with temperature display DCDC 1.5 V x 4 battery (UM-4/AAA) Auto power off after 10 minutes DCDC 1.5 V x 4 battery (UM-4/AAA) Auto power off after 10 minutes Color Black Media SD, SDHC (UHS-I compliant), SDXC (UHS-I compliant) File System DCF 2.0, Exif 2.31, PictBridge Reflex Mirror Quick Return Exposure Meter Coupling CPU Exposure Lock Luminosity Locked At Detected Value Audio Recording Format Linear PCM, AAC Bluetooth Yes HDMI Output Connector Yes Ten-Pin Remote Terminal Yes Wi-Fi Yes Megapixels (Total) 21.51 MP Megapixels Effective 20.9 MP Lens Specification Single Lens Kit Maximum Output Power 8.4 dBm (EIRP) Camera Functions Photo and Video Modes Photo Live View, Movie Live View Total pixels 24.72 Million Effective pixels 24.2 Million Type Single-lens Reflex Digital Camera Image sensor type CMOS	1	
34	161	DSLR Camera (For field photography & Microbiology)		2	

35	162	Mini fermentor (Industrial)	Sensor size 23.5 mm x 15.6 mm Camera Type: DCR D Camera Minimum Order Quantity 10 Usage/Application: Laboratory Capacity: 10Ltrs Machine Type: Automatic Voltage: 220V-440V Temperature: 40 degree Celsius	1		
36	163	Air Lift glass Bioreactor	Agitation Speed Range 30 - 1200rpm, 30 - 1000rpm, 30 - 700rpm Agitation Resolution 1 rpm Increment Aeration Baffle Removable 316L stainless steel baffles Log Data Storage Up to 100 process monitoring data files Communication Port Remote software control through Ethernet, up to 8 systems per PC Program Storage Up to 59,994 process programs Rated Voltage 220V, 50/60 Hz, 10A, 2000W	1		
37	164	Column chromatography	Product Specification Power 12 W Phase Single Phase Frequency 50 Hz Voltage 220 V	1		
38	165	ELISA READER	Product Specification Wavelength Range 400~800nm Dimensions 460x350x197mm/ Weight 10kg	1		
39	166	Plant growth chamber	Minimum Order Quantity 1 Product Description Smart Plant Grow Chamber We have designed this plant chamber for research application. This chamber comes with CO2 control, Temp control, Humidity control and Lighting intensity control. We can maintain high intensity up to 500+ PPFD, its best suited for indiantropological crops which require high intensity. We have given multi spectrum tunable light in which we can change wavelengths as well as intensities of plant.	1		

40	167	RT PCR with all accessories	We can control temperature from 15 degree to 30 degree celsius. Actual growing area is 2 ft x 2 ft x 4 ft. Features - Broad spectrum / Multi spectrum tunnable light - 0 to 600+ PPFD control - Temp control: 16 degrees to 30 degrees - 0 to 90% Humidity control - CO2 control - 0 to 100% dimming provision - Controlled air flow - Humidity, Temperature indication - Timer controlled light - Air tight door Applied Biosystems QuantStudio 5 Real Time PCR Machine, 0.1 mL, 96 wells Sample Capacity/Format 96 wells Volume Thermal Block Sample 0.1 mL No of Channels 2 Temperature Accuracy 0.25 DegreeC Temperature Uniformity 0.4 DegreeC Weight 26KG Dimensions 27 x 50 x 40 cm Sensitivity Resolution: Detect differences as small as 1.5-fold in target quantities in a singleplex reaction, N Communication Interface USB Scan Modes Entire Plate Minimum Order Quantity 1	1		
41	168	Fluorescence microscope with all accessories	fluorescence arm with butil in Two/ Four (option) filters (UV, V,B, G,) Dichoric Mirror & objective plain Achromatic Objective - 4x, 10x, 40x, 100x. Fluorescence Objective - 4x, 10x, 40x, 100x. Standard interference filters 1. B Excitation (400-490 nm) 2. G Excitation (400-490 nm) Optional : 1. UV Excitation (400-490 nm) 2. V Excitation (400-490 nm) Transmitted tungsten halogen lamp. Fluorescent sources 100 w mercury lamp complete with instruction manual	1		

42	169	Laboratory Homogenizer	Display Type: LCD Speed Range: 1000-28000 RPM Generator Probes Type: Saw Tooth - Wide Window Generator Probes Length: NA (if not supplied) Power Rating: 160 Watt No of Generator Probes: NA (if not supplied) Generator Probes Diameter: 10 Power Supply: 220-240V / 50-60 Hz Operation Type: Electric Operated Generator Probes Material: SS 316L Stainless Steel Sample Processing Range: 1-1500 ml Package Contents: Homogenizer Touch Screen Display: No	2	
43	172	Flame Photometer	Reproducibility (+/-, in %) 0.1 Flame photometer is capable to analyse elements in sample: Sodium, Potassium, Calcium, Lithium Filters: Each unit of Flame Photometer to be supplied with filters for Sodium and Potassium, in addition the offered unit to be supplied with filters for: Sodium, Potassium, Sodium, Potassium, Calcium, Sodium, Potassium, Lithium, Sodium, Potassium, Calcium and Lithium Accuracy (+/-, in %) 0.01 Whether the Flame photometer unit is offered with digital interface along with software required for sharing sample data in digital form with computer: Yes	2	
44	173	µ Controller Based Visible Single Beam Spectrophotometer	Type of Spectrophotometer: Visible Type of Optical System: Single Beam Monochromator Type: Detector Type: Photodiode Spectral Bandwidth Type: Fixed Bandwidth Source Wavelength - Minimum: 340 nanometer Source Wavelength - Maximum: 960 nanometer Resolution: 2 nanometer Wavelength Accuracy (+/-): 2 nanometer Bandwidth (nm): 5.0 Focal length (mm): 0 to 49 Photometric measurement modes: Transmittance, Absorbance, Concentration (Wavelength, time) Photometric Absorbance (Max) (Abs) (+/-): 2.5 Photometric Absorbance Accuracy (Max) (+/-): 0.005 Photometric Reflectance (Max) (+/-): 100%	2	

Detector Type: Deuterated Triglycine Sulphate (DTGS)

45	174	Spectrophotometer	Range 340 – 960 nm Resolution %T: 0.1, Abs: 0.001, Conc.: 1 Output %T: 0 – 100, Abs: 0 – 1.99, Conc.: 0 – 1999 Detector Silicon Photodiode Light Source 6V, 10W, Tungsten Halogen Lamp Monochromator 600 line/mm Holographic Grating Sample Holder 10 mm glass square cuvettes and provision for 50 mm glass square cuvettes also available 10 mm glass square cuvettes Spectral Bandwidth 5 nm Wavelength Resolution 1 nm Wavelength Accuracy + 2.5 nm Repeatability + 2 nm Reorder Output Available Display 3 ½ Digit Bright Red LED Display Operating Temp. Range 5 °C to 45 °C Power 230 V + 10% AC, 50Hz Dimensions (L x B x H) 475 x 285 x 130 mm (Approx.) Weight 8.5 Kg (Approx.) Accessories Glass Square Cuvettes of 10 mm path-length: A set of 2, Operation Manual and Dust Cover	2
46	175	ELECTRONIC BALANCE	Maximum Capacity: 220 g/82 g Readability: 0.1 mg; 0.01 mg Repeatability (Test Weight): 0.08 mg; 0.02 mg (200 g) Minimum Weight (USP), Typical: 45 mg Settling Time: 1.5 s Weighing Pan Diameter: 80 mm Interfaces: RS232 and USB	2

47	176	POTENTIOMETER (DIGITAL)	Adjustment: Internal / FACT Resolution: 0.1 mg/0.01 mg Housing: Die-cast aluminum, plastic PA-12 Dimensions (DxHxW): 358 mm x 358 mm x 247 mm Enclosure Dimensions (mm)-96 x 192 x 150 Mounting Type-Door mounting Output-0 to 5V DC Feather touch switches for increase & decrease on front-Yes Operating Voltage-24V DC Backside connections for remote operation-Yes Display (in % of load)-3 & 1/2 digit seven segment red LED display Retract Voltage-0 V,0.5 V,1.5 V,2.5 V Retract mode-Yes Panel cutout (mm)-92 x 188 Local Content (MII): 100% Conformity to Manufacturing Standards: ISO 9001 & ISO 13485 Type of configuration: Mobile Material used for the work bench: Stainless steel 304 grade Material used for the front door: Stainless steel 304 grade Material used for the Side panels: Stainless steel 304 grade Availability of motorized sliding door: Not required LCD display for velocity, time & lamp on/off: Yes UV Hour meter: Yes UV Germicidal lamp: Yes DOP HEPA filter testing: Yes Digital Pressure Gauge with Alarm: Not required Availability of display: Yes Type of display: LCD Warranty: 3 year	2	
48	177	Horizontal Laminar Air Flow Cabinets 3x2x2 Feet	Type of Motor Brushless (without carbons) Type of lid lock Both Manual and Electronic No of acceleration and deceleration profiles in built for rotor speed while automatic braking "Programmable from 50 to 200 Seconds in Interval of 5 Seconds" Configuration of Rotor supplied with centrifuge machine Angle rotor Size of rotor supplied with centrifuge in ml"24x1.5ml(for angle rotor) RPM 16000" Warranty period for equipment & Rotor (on site and comprehensive warranty) in years1	2	
49	178	Laboratory Centrifuge			

50	179	Electrophoresis system Vertical With complete accessories and Power supply	Condensed Water Drainage System: No The Equipment shall be installed and demonstrated before Acceptance Yes Servo Controller Voltage Stabilizer supplied with Item : YES/No Vertical Electrophoresis system Dimensions of Glass Plates in cm x cm 20x10 Dimensions of Gel in cm x cm 8x8.5 Thickness of comb (mm) 1.5 Thickness of spacers (mm) 1.5 Construction of Unit (Moulded/Fabricated) Fabricated Upgradable Option Yes Dimensions of Glass Plates in cm x cm 20x10 Dimensions of Gel in cm x cm 8x8.5 Thickness of comb (mm) 1.5 Thickness of spacers (mm) 1.5 Construction of Unit (Moulded/Fabricated) Fabricated Upgradable Option Yes	1
51	180	PCR Machine With complete accessories)	Specification for PCR 1. 96 well x 0.2ml PCR tubes/ one 96 well plate/3X 32 wells 2. Gradient PCR = capable of testing 12 different temperatures simultaneously across a gradient range of 1-20 and a temperature gradient from 30 - 99° C, with minimum 0.1° C increment in gradient 3. Peltier based heating and cooling 4. Block heat rate: 5.0°C/Sec 5. Adjustable ramp rate 6. Sample ramp Rate: 4.4°C/S 7. Temperature Range: 4-99°C/S 8. Temperature accuracy: ± 0.2°C 9. Temperature Uniformity: ±0.3°C (20-70°C) 10. Gradient technology should ensure identical ramp rates in both gradient and normal operation 11. Lid temperature range of 33-110°C 12. Display: LCD touch Screen, about 8.5in. 13. Ports : USB ports 14. Programmable protocols, storage of minimum 1000 programmes 15. Programmed templates 16. Customisable programming allowing up to 20 steps and 99 cycles 17. Auto Restart facility with user defined time interval when power fails and	1

52	181	PCR Machine	resumes 18. Advanced security features 19. Thermo block made of silver 20. Monitor should indicate the step, cycle and remaining runtime during the run 21. Minimum Two USB ports 22. Ethernet port 23. Log book function for error messages and new calibration 24. Power save Standby function 25. Should have calibration certificate from reputed international agencies 26. Certificate from reputed organisation or institutions mentioning no hazardous chemicals are present in the instrument. 27. Compatible UPS should be provided with minimum 1 hour backup 28. Minimum 1 year warranty 29. AMC terms & conditions beyond the warranty period to be specified Purpose PCR is a laboratory technique used to amplify segments of DNA via the Polymerase Chain Reaction Display Interface TFT Block Format Fixed Capacity of Blocks 0.2ml x 1x96 well Maximum Heating Ramp rate in degree cycle per second 5° C/S Maximum Cooling Ramp rate in degree cycle per second 4° C/S Adjustable heating/cooling Ramp Rate Yes Temperature setting accuracy in °C ±0.1 °C Well to well temperature uniformity in °C ±0.2 °C Gradient Spread in °C 1-30°C Hot Lid Temperature 30-110°C Max No of Programmable Steps 40 Max No of Programmable Cycles Upto 100 Availability of USB ports 2 Memory to store programs 1000-5000 Pause/Start function Yes Built-in Tm Calculator Yes Tube Type Binocular Tube Illumination Type Diascopic Eyepiece magnification 10x Objective magnification 40x Rated Voltage 220 Volt	1	
53	182	Research Microscope		1	

54	183	Water Incubator Shaker	Water bath Chamber Capacity>over 14 to 18 litre Chamber Construction:Double walled rectangular chamber with mineral wool/solid insulation material filling in between Material of Outer Chamber Construction:Epoxy / Powder coated Stainless Steel SS304 Number of racks provided with Water bath unit0 Number of 75 mm diameter Holes provided:12 Heating Capacity ($\geq$):1500 Watt Control Panel has:ON/Off Switch ,Heating & Temperature (Set & Actual) Indicators ,Power mains Indicator ,Temperature controller Type of Temperature controller Digital controller cum Indicator PID Based control Temperature range of bath chamber:5°C above ambient to 99.9°C Temperature control sensitivity:$\pm 0.5^\circ\text{C}$ or better Least temperature increment Step available 1 degree C Temperature Accuracy:$\pm 5^\circ\text{C}$ or better Safety Features:Over temperature Alarm & cutoff Power requirement:220 V 50 Hz Single Phase AC Availability of Test Report from Central Govt/NABL/ILAC accredited lab to prove conformity to specificationNo Equipment has CE certificationYes	2	
55	184	Water Bath Incubator Shaker	Water bath Chamber Capacity>over 14 to 18 litre Chamber Construction:Double walled rectangular chamber with mineral wool/solid insulation material filling in between Material of Outer Chamber Construction:Epoxy / Powder coated Stainless Steel SS304 Number of racks provided with Water bath unit0 Number of 75 mm diameter Holes provided:12 Heating Capacity ($\geq$):1500 Watt Control Panel has:ON/Off Switch ,Heating & Temperature (Set & Actual) Indicators ,Power mains Indicator ,Temperature controller Type of Temperature controller Digital controller cum Indicator PID Based control Temperature range of bath chamber:5°C above ambient to 99.9°C Temperature control sensitivity:$\pm 0.5^\circ\text{C}$ or better	2	

56	185	Rotary Shaker	Least temperature increment Step available 1 degree C Temperature Accuracy-1.50C or better Safety Features:Over temperature Alarm & cutoff. Power requirement:220 V 50 Hz Single Phase AC Availability of Test Report from Central Govt/NABL/ILAC accredited lab to prove conformity to specification.No Equipment has CE certification Yes Controller-Mechanical Timer Type of motor-AC Steeples frequency speed control-Yes Speed range in RPM-20 to 300 Universal platform with adjustable rollers and surface to accommodate ire changeable clamps of assorted sizes/capacities for holding conical flasks-Yes Shaking amplitude in mm-40 Material of body-MS with powder coating Compact counter balance drive mechanism to ensure stability-Yes Platform size in length x width in mm x mm-36 x 36 Flask sizes which can be accommodated in plat form in ml-50 Display-LED Parameters displayed-Speed with preset facility Timer range in minutes-30/60 Auto restart after power resumption-No Maximum volume in liters-others Motor protection in case of over load-Yes(LED Light flash ,auto stop) Power supply-220 Volts, 50Hz/60Hz, Single Phase Weight of Rotary Shaker in kg-25 Dimensions of Rotary Shaker-36x36 No of 50 ml clamps supplied with machine-others No of 100 ml clamps supplied with machine-others No of 250 l clamps supplied with machine-others No of 500 ml clamps supplied with machine-others No of 1000 ml clamps supplied with machine-others Centrifuge design Bench Top Type of MotorBrushless(without carbons) Configuration of Rotor supplied with centrifuge machineAngle rotor Size of rotor supplied with centrifuge8x 2 ml (fixed angel 6000 RPM) installation and demonstration required and consignee can install)	4	
57	186	Centrifuge		4	

58	187	Compound Microscope	Optical Tube : Binocular Compound Microscope Magnification : 100x Illumination : LED with variable illumination control. Up to 100,000 hours of LED life.	4
59	188	Auto Clave	TECHNICAL SPECIFICATIONS : HIGH PRESSURE AUTOCLAVE 1- Horizontal Rectangular High Pressure High Vacuum steam Sterilizer. 2- Chamber size shall be minimum of 2 feet width x 2 feet height x 4 feet length. 3- Should be operated on 400-440V, 3 phase with neutral, AC power supply. 4- Chamber volume shall be minimum of 420 liters. 5- Steam generator volume shall be minimum of 60 liters and should be fitted with suitable electrical heater load of 18KW, to produce steam to sterilizer. 6- The sterilizer shall have single door (Hinge type) with radial locking using shooting bolts having high pressure locking safety facility and made of good quality stainless steel 304 7- The sterilizer shall have to draw the water, automatically, when needed in the inbuilt boiler. 8- Thickness of chamber of sterilizer shall be minimum 6mm and to be made of stainless steel 9- 316 quality is capable to withstand the negative pressure (vacuum) of 24-26"Hg created by the vacuum pump. 10- Thickness of door of sterilizer shall be minimum of 12mm and to be made of stainless steel 316 quality. 11- Sterilizer jacket shall be made of Boiler quality steel plate with a material thickness of 6-8mm. 12- Glass wool insulation thickness shall be 50mm. Insulation cover shall be made of good quality stainless steel 304 quality. 13- All connecting pipes shall be made of good quality stainless steel. 14- Stand shall be made of Mild steel with anticorrosion paint. 15- The unit shall be fitted with suitable water ring Vacuum pump, motor capacity: 3 HP, to create high vacuum of 26"Hg for efficient drying and sterilization of loads. The sound	3

level of vacuum pump shall be <800Pa and no vibration. Vacuum pump, fitted with suitable stainless steel condenser, piping's and pipes to enable efficient drying with the use of the Vacuum pump.

15- Pressure gauge range shall be 0 to 6 Kg./cm².

16- Compound gauge range shall be - 1 to 6 Kg/cm².

17- Safety valve range shall be 0.3 to 3.5kg/cm².

18- The unit shall be capable of being stored continuously in ambient temperature of 0-50 Deg.C and relative humidity of 15-90%.

19- Suitable validation port shall be provided.

20- Working temperature of sterilizer is 121-134 Deg. C and the corresponding pressure is 1.2-2.1 kg/cm².

21- Safety features of sterilizers: Door locking facility, Low water protection system, Pressure cut off facility and all other necessary safety features.

22- Equipment shall have no sharp edges, will be securely mounted and would provide adequate protection against moving and electrically energized parts.

23- Controls (e.g. switches, knobs) shall be visible and clearly identified.

24- Labels and markings shall be clear and visible.

25- Equipment shall be simple to use, operate and maintain (User friendly). It shall be designed for easy access to serviceable parts.

26- AUTOMATIC OPERATION WITH PRINTER:

(A) The sterilizer shall be fitted with suitable PLC (Microprocessor) for fully automatic cycle operation instead of manual operating valve with following Features:

(i) PLC based microprocessor which is incorporated with the sterilizer.

(ii) Digital displays of Chamber Pressure, temperature, cycle no., Batch no., Time & date, alarm indicator, Low water indicator.

(iii) Provision of 'error code analysis' inbuilt, Leak test, Bowie & Dick and Standard Process.

(B) Printer: Printer that shall automatically and continuously monitor and

record dates, time of day, load, identification no. and operating parameters.

(C) The system shall be designed, primarily, for carrying out the following:

- Ø Leak test cycle
- Ø Bowie & Dick Process
- Ø Standard Process
- Ø High pressure and High Vacuum Process – vacuum holding.

27- STANDARDS & SAFETY:

(A) The unit should be manufactured as per IS specifications Mark ISI:3829 and also should bear the certification.

(B) Electrical safety shall conform to standards for electrical safety IEC-60601-2-25 Safety of electrocardiograms (OR EQUIVALENT BIS Standard).

(C) Electrical safety shall conform to standards for electrical safety IEC-60601/IS-12450

(D) Equipment performance should not be affected by electro magnetic interference radiated or conducted through power lines from another device.

(E) Necessary operational training / day-to-day maintenance training shall be imparted to our staff after commissioning of the equipment at site.

28- AFTER SALES SERVICE:

(A) After-sales-service/ maintenance shall be provided from your factory trained engineer.

(B) Response time from time of lodging the complaint shall be 24-36 hours and total uptime in a year shall be not less than 97% including PPM.

(C) Back to back warranty to be taken by the supplier from the principal to supply spares for a minimum period 10 year.

(D) Should have service facility. The service provider should have the necessary equipments recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.

29- SPARES AND ACCESSORIES TO BE PROVIDED ALONG WITH EQUIPMENT:

			(A) Spare fuses 10nos shall be provided, if fuses are used. (B) Spare water reading glass and watch shall be provided (C) One number single water still (distillation) with following features: Electrically operated water still capable of providing 10 liter / hour pyrogen free distilled water, made of stainless steel, having immersion water heater (heating coils) with low water protection (low water cut off device). (D) 60 liter plastic tank to store distilled water, fitted with two outlet taps to withdraw water. 30- DOCUMENTATION - SHALL BE PROVIDED AT THE TIME OF DELIVERY: (A) Operator's / instruction/ user manual in English should be provided. (B) Installation qualification (C) Operation qualification (D) Design qualification (E) Performance qualification (F) Hydraulic test certificate (G) Material test certificate (H) Gauge calibration certificate (I) Master gauge calibration certificate (J) Warranty certificate 31- Vendor has to support the specifications with manufacturer's brochure failing		
60	189	Shaker Machine	Type of Movement: Orbital Maximum Load: 12 kg. Voltage: 220 - 240 V Frequency: 50 Hz Speed Range: 0 - 200 RPM Operation Mode: Continuous Operation Permissible Ambient Temperature: 5 - 40 DegC Permissible Relative Moisture: 80% Motor Type: PMDC Motor Dimensions: 74 x 74 x 20 mm Weight: 15 kgs.	3	
61	194	Distillation Unit	Platform Size: 18" x 18" And 24" x 24" and others Distillation Water Capacity (LPH) 8 Built in Quartz Heater Capacity 8.5 kilo Watt	2	

62	217	Water Bath	Product Specification Voltage 220V AC 50 Hz Automation Grade Automatic Type digital Temperature Control Power 1500W Standard Model 6 Holes & 12 Holes Coating Outside MS Powder Coated Material Inside Body Fully Stainless Steel Temperature range :up to 300°C. Temperature can be displayed in °C or °F. Top plate size: 290x290mm Temp. stability: ±1° Digital PID temperature control. Digital set-point and read-out of actual temperature. Includes both internal heat sensor and a thermocouple immersion probe 220volt/1600watt Dimensions: W290xH170xD290mm	2
63	218	Digital Hot Plate	Biochemical oxygen demand, or BOD, is a chemical procedure for determining the amount of dissolved oxygen needed by aerobic biological organisms in a body of water to break down organic material present in a given water sample at certain temperature over a specific time period. the equipment offered comprises analysis equipment, chemical reagents for accurately testing quality of water, quality field testing kits and other aqueous solutions. The range offered include BOD Analyzer, COD Analyzer, Conductivity Meter, Dissolved Oxygen Meters, Ion Concentration Meters, Multi Function Reactor, PH Meter, TOC Analyzer, Water Analyzer, Water Hardness Test Meter and Water Toxicity Analyzer.	3
64	264	BOD Meter	Double beam, Czerny Turner monochromator (Grating should be 1200 lines/mm or better. Xenon flash lamp (80 Hz) with typical lifetime of 7-10 years.2 silicon diode detectors for simultaneous sample beam and reference beam measurements. Measurable range 190-1100 nm. Spectral bandwidth Up to 2 nm Stray Light ≤ 0.05%T or better Photometric Linear Range 4 Abs or better Wavelength Accuracy ± 0.5 nm or better Wavelength reproducibility: ± 0.1nm or better Photometric Accuracy ±0.001 Abs or better Baseline Flatness ±0.001 Abs or better throughout UV-Vis range Photometric Stability	2
65	270	Spectrophotometer		

66	271	Coal Petrological Microscope	Strain-free optics, because you need to be sure that the observed birefringence results from the sample and not from the optics. LED illumination is crucial, because it lights the samples homogeneously and at a constant color temperature. Polarizers will make birefringence visible and a rotatable stage enables you to align the sample and optical axis. LED lights your samples homogeneously and at a constant color temperature, providing you with a realistic impression of your sample. When you change objectives, illumination intensity and aperture settings are recalled with the Illumination Intensity Control and Contrast Manager. The bomb calorimeter is the most common device for measuring the heat of combustion or calorific value of a material. With this apparatus a test specimen of specified mass is burned under standardised conditions. The heat of combustion determined under these conditions is calculated on the basis of the observed temperature rise while taking account of heat loss. The combustion process is initiated inside an atmosphere of oxygen in a constant volume container, the bomb, which is a vessel built to withstand high pressures. It is immersed in a stirred water bath, and the whole device is the calorimeter vessel. The calorimeter vessel is also immersed in an outer water bath. The water temperature in the calorimeter vessel and that of the outer bath are both monitored.	2
67	274	Bomb calorimeter	Procedure Qualitative only (Slide Test), Semi-quantitative method (Slide Test) as well as Quantitative method (Tube Test) Procedure Time 1 min for qualitative and semi-quantitative method Sample Type Serum only Sensitivity Up to 1:320 dilutions in Semi-quantitative and Quantitative test method Pack Size 10x10 ml 3x10 ml 4x10 ml Storage Temperature 2-80C Shelf life 18 months Kit dimensions 10x10 ml - 160x210x40 mm. 3x10 ml - 85x105x45 mm 4x10 ml - 85x105x45 mm Production Capacity 600 mm ml per annum Glass tray (W x L) Thick type: 101 x 83 mm Thin type : 101 x 73 mm Gel trays (W x L) Hand glue: 83 x 73 mm	1
68	276	blood group test kit		10
69	277	Electrophoresis apparatus		2

					Precast plate: 86 x 68 mm Comb Thickness Standard : 1.0 mm Buffer Volume 700 ml No of wells 10, 15 samples No of Gel 1 to 2 pcs No of Samples 10 to 30 pcs External Size (L x W x H) 150 x 120 x 130 mm Package size (L x W x H) 400 x 350 x 300 mm Gross Weight 2.7 kg		
70	278	Polarizing Microscope			25X to 675X- LED Polarized light microscopy is an optical microscopy technique involving polarized light. Simple techniques include illumination of the sample with polarized light. Directly transmitted or incident light can, optionally, be blocked with a polariser orientated at 90 degrees to the illumination. These illumination techniques are most commonly used on birefringent samples where the polarized light interacts strongly with the sample and so generating contrast with the background. Polarized light microscopy is used extensively in optical mineralogy. Polarizing microscopes are designed to image samples which are visible primarily due to optical anisotropy, or measurable differences in refractivity. Over 90% of solid samples exhibit optical properties that vary with the orientation of incident light and are therefore amenable to imaging. The technique offers significant advantages for samples that exhibit poor phase contrast by other means so as light or fluorescence. It can also reveal details concerning the structure and composition of materials.	10	
71	279	Furnace			Box-type resistance furnace which is also known as muffle furnace; it's the basic heating equipment for laboratory use. Its wide application areas covering industrial & mining enterprises, scientific research institutes, universities, laboratories and other experiments purpose. The resistance furnace is the necessary equipment for sintering, melting and heat treatment of the material and volatile experiments. The enclosure is external double furnace structure, with cavity insulation, ventilation and other powerful effects. To ensure that the surface temperature of the furnace is far below the national standard Insulation materials imported high-quality ceramic fiber, 60% energy saving than traditional materials, light weight, good insulation effect.	1	



72	280	Zoom stereo Microscope	Optical body Trinocular body Zoom Ratio 1:7 objective zoom range 0.65 X – 4.5 X eye piece SWF 10X / 22mm (high eye point super widefield eyepieces) working distance 100 mm interpupillary distance adjustment 55 mm -75 mm binocular head inclination of 45 deg diopter adjustment +/- 5 diopter optical body rotation 360 deg reflected and transmitted illumination volt input 220v/50 HZ top halogen lamp 6V 15 V adjustment brightness bottom fluorescent lamp 5 W Camera specifications: Compatible CMOS (5 MP or higher) camera with video, image capture and advanced image processing software (with c-mount). All camera specifications such as: pixel count and resolution, sensor size, binning, FPS@max resolution, exposure etc. should be clearly mentioned in the quote. Accessories: 1. 2x auxiliary lens 2. wide field 25x eyepieces 3. Dark field attachment	
73	281	Flourescent microscope	Viewing head Siedentopf type binocular head inclined at 30°, 360° rotation Interpupillary adjustable distance 50mm-75mm Anti-fungal system Eyepiece WF10X/20 mm Objective Infinite plan objectives (5pcs) 4x, 10x, 20x, 40x(s), 100x(s,oil) Stage Double layer mechanical stage with removable slide holder: 180mm×145mm Travel stage: 76(X)mm×52(Y)mm with right hand stage handle Focusing Coaxial coarse & fine adjustment with rack and pinion mechanism fine focusing interval 0.002mm Condenser Abbe N.A. 1.25 condenser with iris diaphragm Nosepiece Quadruple quick stop revolving mechanism with multiple ball bearing Illumination Halogen lamp 6V/20W or 3W LED brightness adjustable Power supply 85V-265V universal power supply Fluorescence attachment Epi-fluorescence unit: B,G	2

74	282	High speed centrifuge	100W mercury power source (pointer or digital) 100 w mercury lamp house Center objective Dimension 650 × 420 × 490 mm Net weight 18 kg Gross weight 21 kg Specifications: Max. Speed: 26,000 rpm ± 500 RPM Max. RCF: 75,000xg ± 500 RPM Max. Rotor Capacity: 6 x 1000 ml Control: Microprocessor controlled, Touch-screen interface with digital display Drive System: High performance, brushless, high frequency direct drive motor or other latest technology. Temperature Control Range: 0°C to 40°C Temp. Control Accuracy: ± 1°C of set temperature Refrigeration System: Non-CFC/ HCFC, non-ozone-depleting Refrigeration technology Run Time: 99 h 59min; Hold Ambient temp. range: 15 to 45 °C Speed Control Range: 300 rpm to Maximum RPM Speed Control Accuracy: ± 25 rpm Programmability: 15 programs or more Acceleration/ Deceleration Profile: 9/10 Power: 230 VAC, 50 Hz, single phase Instrument should have inbuilt vacuum system to support up to 200 micron vacuum pressure. The centrifuge must be capable of supporting Fixed Angle/Swing-out rotor made of titanium and aluminum rotors. The centrifuge must provide automatic and instant rotor identification. Centrifuge should have pre cooling/chamber pre-cooling option. System must comply with CE and other safety and regulatory standards. The centrifuge must offer a non-prorated drive unit warranty of 10 years or more. Rotors provided with this centrifuge must have a 15 years non-pro-rated rotor replacement warranty. Machine should be brush-less high frequency direct drive motor and have features like Delayed start/ stop, dual display of 'Run' & 'Set' parameters, Real Time	5
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75	284	PCR	Control, etc. Warranty applicable for the instrument and the rotors are to be mentioned clearly. A suitable voltage stabilizer should also be supplied along with the centrifuge machine and the stabilizer cost to be included in the main quotation only. The suitable consumables should be quoted as optional item Fixed angle rotors (Cost to be included in the main Quotation only, the price of units should be mentioned separately) Selected rotors must be certified as autoclavable to 121 °C. Fixed Angle Rotor Max. Speed: 8,000 rpm or more Max. RCF: 15,000 x g or more Capacity: 6 x 1000ml Fixed Angle Rotor Max. Speed: 16,000 rpm or more Max. RCF: 30,000 x g or more Capacity: 6 x 250 ml Fixed Angle Rotor Max. Speed: 25,000 rpm or more Max. RCF: 75,000 x g or more Capacity: 8 x 50 ml Fixed Angle Rotor Max. Speed: 17,000 rpm or more Max. RCF: 39,000 x g or more Capacity: 14 x 50 ml Compatible 10/15 ml and 1.5 ml adaptors for 8 x 50 ml rotor should be provided. Spare set of bottles each of (6 x 1000 ml), (6 x 250 ml) and tubes (8 x 50 ml) for the operation of Fixed Angle Rotors to be included in the main quotation only. Specification for PCR 1. 96 well x 0.2ml PCR tubes/ one 96 well plate/3X 32 wells 2. Gradient PCR = capable of testing 12 different temperatures simultaneously across a gradient range of 1-20 and a temperature gradient from 30 - 99° C, with minimum 0.1° C increment in gradient 3. Peltier based heating and cooling	1	
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			4. Block heat rate: 5 °C/Sec 5. Adjustable ramp rate 6. Sample ramp Rate: 4.4°C/S 7. Temperature Range: 4-99°C/S 8. Temperature accuracy: $\pm 0.2^{\circ}\text{C}$ 9. Temperature Uniformity: $\pm 0.3^{\circ}\text{C}$ (20-70°C) 10. Gradient technology should ensure identical ramp rates in both gradient and normal operation 11. Lid temperature range of 33-110°C 12. Display: LCD touch Screen, about 8.5in. 13. Ports : USB ports 14. Programmable protocols, storage of minimum 1000 programmes 15. Programmed templates 16. Customisable programming allowing up to 20 steps and 99 cycles 17. Auto Restart facility with user defined time interval when power fails and resumes 18. Advanced security features. 19. Thermo block made of silver 20. Monitor should indicate the step, cycle and remaining runtime during the run 21. Minimum Two USB ports 22. Ethernet port 23. Log book function for error messages and new calibration 24. Power save Standby function 25. Should have calibration certificate from reputed international agencies 26. Certificate from reputed organisation or institutions mentioning no hazardous chemicals are present in the instrument. 27. Compatible UPS should be provided with minimum 1 hour backup 28. Minimum 1 year warranty 29. AMC terms & conditions beyond the warranty period to be specified		
76	285	Micropipette	Volume Range 1-10 μl 10-100 μl 100-1000 μl 1-10 ml Accuracy $\pm 2.5 - 1.0\% \pm 1.8 - 0.8\% \pm 1.5 - 0.6\% \pm 2.5 - 0.6\%$ Repeatability $\leq 1.5 - 0.4\% \leq 0.5 - 0.15\% \leq 0.3 - 0.15\% \leq 0.3 - 0.15\%$ Sterilization Autoclave at 121°C for 20 Minutes Package Content 1 x Micropipette, 1 x Calibration Key, 1 x Instruction Manual, 1 x Quality Assurance Form, 1 x Bag of Pipette Tip(s) Package Type Cardboard Box	10	

77	286	Cold mini centrifuge	Speed control range 1000 - 14500 rpm (increment 100 rpm) Relative centrifugal force control range 50-12,400 × g Digital time setting 15 s - 30 min (increment 15 s - 1 min) Timer sound signal + Rotor imbalance diagnostics (automatic stop, "IMBALANCE" warning) + Acceleration time up to 14,500 rpm 20 s Slowdown time, not more 10 s Display LCD, 2 x 16 signs Overall dimensions (W×D×H) 200x240x125 mm Weight 3.5 kg Input current/power consumption 24 V, 2.5 A / 60 W External power supply Input AC 100-240 V 50/60 Hz, Output DC 24 Depending on the type and amount of sample, the UV transilluminator is operated in any of the three wavelength bands. 254, 312, and 365 nm are typical wavelengths. 312 nm are used for standard gel documentation in the gel doc system. This corresponds to ethidium bromide's fluorescence excitation peak. 254 nm is used in crosslinking applications as it causes higher DNA damage. The intensity of illumination can be selected using high, medium, or low levels. High intensity provides imaging with a lower concentration of the sample. However, this mode is not recommended during longer exposure times. Medium intensity is good to view a single band quickly. Lower intensity focuses on photography on multiple bands and is suggested for use during the availability of higher sample amounts. Also, it is used when the signal of the fluorescence is weaker. Extraordinary uniform intensity can produce high-quality images. Multiple gels can be placed on the surface with uniform illumination of each lane and gel. The coefficient of variance is less than 5% in uniformity for the full filter area. Low performance transilluminators have 8 watt bulbs, whereas high performance transilluminators can have more bulbs with each up to 25 watt. Background noise signal is the lowest in the case of high performance ones. Mini UV transilluminators are also there. It comes in handy during basic documentation and preparative tasks. It can also serve as a precursor visualization before the main experiment as unwanted parts of the gel can be cut after the visualization. The size and illumination area are also lesser. It is used to save bench space. In addition, it is easier to clean. Besides, they are tiltable and movable. To prevent the risk of exposure to UV radiation, UV-to-blue converter plates can be placed on top of a transilluminator for conversion of UV to blue light. In	2
78	287	Gel documentation uvtransilluminator	1	1

79	288	Power supply unit for electrophoresis	addition, an amber filter should also be attached for visualization. They serve as a cheaper counterpart to blue LED transilluminators. Another is the UV-to-white converter plate, which converts UV to white light and is used in viewing colored dyes in table models. It is utilized to view colored samples like coomassie blue or silver stained gels. It serves as a cheaper alternative to white LED transilluminators. The size of the UV transilluminator may range from 8*8 cm to 25*25 Output range : 10–300 V, fully adjustable in 1 V steps, 1-400 mA fully adjustable in 1 mA steps Type of output : Constant voltage or constant current Output terminals : 4 pair recessed banana jacks in parallel Timer : 1 min–999 min , fully adjustable Start /Stop Function : Yes Display : 3-digit LED Operating conditions : 0–40°C, 0–90% humidity in the absence of condensation Safety features : No-load detection, sudden load change detection, overload/short-circuit detection, Input protection : Fuse on both hot and neutral Input power (actual) : 220 VAC/50hz Instruction Manual : 1 No. Warranty Card : 1 No	2		
80	289	Electrophoresis apparatus	Glass tray (W × L) Thick type: 101 × 83 mm Thin type : 101 × 73 mm Gel trays (W × L) Hand glue: 83 × 73 mm Precast glue: 86 × 68 mm Comb Thickness Standard : 1.0 mm Buffer Volume 700 ml No of wells 10 , 15 samples No of Gel 1 to 2 pcs No of Samples 10 to 30 pcs External Size (L × W × H) 150 × 120 × 130 mm Package size (L × W × H) 400 × 350 × 300 mm Gross Weight 2.7 kg	1		
81	290	gel documentation uvtransilluminator	Depending on the type and amount of sample, the UV transilluminator is operated in any of the three wavelength bands. 254, 312, and 365 nm are typical wavelengths. 312 nm are used for standard gel documentation in the gel doc system. This corresponds to ethidium bromide's fluorescence excitation peak. 254 nm is used in crosslinking applications as it causes higher DNA damage. The intensity of illumination can be selected using high, medium, or	2		

82	291	HOT air oven	low levels. High intensity provides imaging with a lower concentration of the sample. However, this mode is not recommended during longer exposure times. Medium intensity is good to view a single band quickly. Lower intensity focuses on photography on multiple bands and is suggested for use during the availability of higher sample amounts. Also, it is used when the signal of the fluorescence is weaker. Extraordinary uniform intensity can produce high-quality images. Multiple gels can be placed on the surface with uniform illumination of each lane and gel. The coefficient of variance is less than 5% in uniformity for the full filter area. Low performance transilluminators have 8 watt bulbs, whereas high performance transilluminators can have more bulbs with each up to 25 watt. Background noise signal is the lowest in the case of high performance ones. Mini UV transilluminators are also there. It comes in handy during basic documentation and preparative tasks. It can also serve as a precursor visualization before the main experiment as unwanted parts of the gel can be cut after the visualization. The size and illumination area are also lesser. It is used to save bench space. In addition, it is easier to clean. Besides, they are tiltable and movable. To prevent the risk of exposure to UV radiation, UV-to-blue converter plates can be placed on top of a transilluminator for conversion of UV to blue light. In addition, an amber filter should also be attached for visualization. They serve as a cheaper counterpart to blue LED transilluminators. Another is the UV-to-white converter plate, which converts UV to white light and is used in viewing colored dyes in table models. It is utilized to view colored samples like coomassie blue or silver stained gels. It serves as a cheaper alternative to white LED transilluminators. The size of the UV transilluminator may range from 8*8 cm to 25*25 Capacity in litres40 Power ratings in watts1500 Ambient temperature range in °C Ambient to 250°C Temperature Accuracy in °C +/-3 Degree C InsulationGlass wool Type of DisplayLED Availability of Double glass window on doorNo Type of ShelvesRemovable Number of shelves2 Warranty in Years1 Material of Outer ChamberMS with powder coated paint	1
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83	292	Incubator with shaker	Material of Shelves SS wire mesh	
			Temperature Range Ambient +5°C to 60°C Environment Heating only Shaking Platform Size 12" x 12", 18" x 18", 22" x 22", 26" x 26" Flask Capacity 250ml x 9 / 500 ml x 4 / 1000 ml x 4 250ml x 16 / 500 ml x 16 / 1000 ml x 9 250ml x 25 / 500 ml x 25 / 1000 ml x 16 250ml x 36 / 500 ml x 36 / 1000 ml x 25 Shaking Speed 0 to 250 rpm (± 1 rpm) Orbital Motion Diameter 12 mm Shaking movement Orbital RPM Display LED Display RPM Controller Speed regulator Exterior Powder Coated steel Sheet Interior Stainless Steel 304 Insulation Glass wool Air circulation Motor driven blower Heater Tubular air heaters Temperature controller Microprocessor PID controller Display of SV & PV Temperature sensor PT100 Door Solid door with magnetic rubber gasket & observation window Illumination LED light Tray Removable tray to keep petri dishes Optional	3

84	293	Biomerieux Vitek 2 Compact Analyzer	Temperature Low / High alarm Changeable platform Test tube racks UV Lamp Exterior made of SS 304 Caster wheels with brake Power 220 Volts / 50 Hz	For fast and accurate microbial identification. With technology that includes an extensive and robust identification database, rapid results, and minimal training time, it will streamline laboratory workflow for increased productivity.	1	
85	294	Bio safety cabinet (Laminar air flow)	Air flow direction Vertical and Horizontal Air cleanliness Class 100 Construction SS / Powder coated MS / GI sheet Air flow direction Vertical / Horizontal Sash (front door) Manual sliding type (Acrylic transparent) Side panels Acrylic / polycarbonate / SS Air velocity 0.45 m/s to 0.65 m/s Illumination 1 or 2 LED Light Noise level 65 $\pm$ 5 db Power supply 220 volts / 50 Hz Air filtration Pre-Filter - 10 microns (washable) HEPA filter (0.3 Microns) Standard fittings Air / gas cock Mains on/off switch Light on/off switch UV Light on/off switch Blower on/off switch Optional Motorized sliding door LCD display for velocity, time & lamp on/off UV Germicidal lamp UV Hour meter Magnehelic gauge Extra power outlet switch Foot rest Leveling lugs for stand DOP HEPA filter testing		2	

86	295	Forensic kit crime scene	Crime Scene Do not Cross" marked Barrication Tape 50x Microscope Pocket Size with UV light Direction Compass 5 cm in Diameter Measuring Tape Grand Harvest Multiple Functional Swiss Knife Magnifier Lens (Linen Tester) with scale Inbuilt LED Illuminated Magnifying Lens, built in 5 pieces ultra- bright white LEDs, 3 Magnification, 57 20 lens Diameter Pocket Portable Ultra Violet Light 270-370 nm with batteries Secondary Light Source : High Beam LED Light Source Pin pointed Ridge Counter(Stainless Steel) Portable tool kit Colored Evidence Markers Evidence Marking Cards Face Mask Disposable single time use only Fingerprint Developing Powder Fluorescent (Black) Fingerprint Developing Powder Fluorescent (Orange) Fingerprint Lifting Tape Fingerprint Processing Brush (Feather) White Nitrile Gloves Blue disposable single time use only Sanitizing wipes towel for cleaning Purposes/ or sanitizer Scale and Pencil Scalpel (Steel) Scissors (Steel) Sterile Head Cover (Blue) Sterile Shoe Cover (Blue) Tweezers (Steel) Zip lock evidence collection bags (Plastic) Carrying Briefcase Black/Brown with company logo
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87	296	Fingerprint developer kit	Item Description Specifications Quantity Finger Print Powder Black 50 Gm Finger Print Powder White 50 Gm Finger Print Powder Grey 50 Gm Finger Print Powder Dual Use 50 Gm Finger Print Fluorescent Powder Yellow 50 Gm Finger Print Fluorescent Powder Green 50 Gm Finger Print Magnetic Powder Grey 50 Gm Finger Print Fluorescent Magnetic Powder Orange 50 Gm Finger Print Feather Brush Stamping Set Type Plastic Molded 01 Finger Print Feather Brush Marabou Feather 01 No Finger Print Elimination Pad Ostrich Feather 01 No Finger Print Magnetic Applicator Normal 01 No Atomizer (Finger Print Powder Fuming Gun) Plastic Top Model 01 No Finger Print Lifting Tape 1 inch 01 No Finger Print Lifting Tape 2 inch 01 No Finger Print Backing Cards 4"x4" Black 24 No Finger Print Backing Cards 4"x4" White 24 No Finger Print Lifters 2"x3" Black 24 No Finger Print Lifters 2"x3" Black 24 No Magnifier Aspheric 75mm, 3X 01 No Portable Evidence Blue LED Lamp Battery Operated 01 No Gloves Latex, Cotton, Heavy 2 Each Scissors Steel 01 No Tweezers Steel 01 No Finger Print Backing Cards 4"x4" White 24 No Scalpel Disposable 01 No Liquid Soap 50ml 01 No Towel Small 01 No Small Aluminum Case with shoulder strap Customized Carrying Case 01 No MAXX Finger Print Developer Kit Item Description Quantity Finger Print Regular Powder - Black 50 Gms Finger Print Regular Powder - Grey 50 Gms Finger Print Regular Powder - White 50 Gms Finger Print Regular Powder - Dual Use 50 Gms Finger Print Magnetic Powder - Black 100 Gms Finger Print Magnetic Powder - Grey 100 Gms
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	Finger Print Magnetic Powder - White 100 Gms Finger Print Magnetic Powder - Dual Use 100 Gms Finger Print Florescent Powder - Red 50 Gms Finger Print Florescent Powder - Yellow 50 Gms Finger Print Florescent Powder - Green 50 Gms Finger Print Florescent Powder - Orange 50 Gms Finger Print Florescent Magnetic Powder - Red 100 Gms Finger Print Florescent Magnetic Powder - Yellow 100 Gms Finger Print Florescent Magnetic Powder - Green 100 Gms Finger Print Florescent Magnetic Powder - Orange 100 Gms Finger Print Feather Marabou Brush 02 Nos Finger Print Feather Ostrich Brush 02 Nos Finger Print Magnetic Powder Applicator 02 Nos Soft Hair Brush 01 Nos Finger Print Lifting Tape 1" 02 Nos Finger Print Lifting Tape 2" 01 Nos Finger Print Lifting Tape 3" 01 Nos Finger Print Black Lifters 24 Nos Finger Print White Lifters 24 Nos Finger Print Transparent Lifters 24 Nos Finger Print Black Backing Cards 24 Nos Finger Print White Backing Cards 24 Nos Finger Print Transparent Gel Lifters (for rough surface) 05 Nos Finger Print Black Gel Lifters (for rough surface) 05 Nos Finger Print White Gel Lifters (for rough surface) 05 Nos Latent Iodine Print Process with Fixative 1 Set Magnifier White Light Illuminated 3 X 3" Dia 01 Nos Magnifier Light Illuminated Scaled Fixed Focus 8 X 01 Nos Magnifier / Linen Tester Folding Light Illuminated 5 X 01 Nos Portable Evidence Blue LED Lamp Battery Operated 01 Nos Scissors 01 Nos Scalpel 01 Nos Tweezers 01 Nos Latex / Nitrile Gloves 5 Pair Cotton Gloves 2 Pair Evidence Marker Fine Tip - Black, Blue, Red 01 Each ALUMINUM CARRYING CASE 01 Each	
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88	297	Male and Female skeleton	Product Specification	1
			Size MALE -173cm Female -162cm Brand GD/A11101/1 and GD/A11101/2 Color Cream Material PVC Features Features nerve branches, vertebral artery and herniated lumbar disc. Weight 14kgs Minimum Order Quantity 1 Product Description • Size: Male: 173 cm Female: 162 cm. • This life-size articulated adult plastic skeleton is ideal for teaching the basics of human anatomy. • The arms and the legs are removable for study. • Features nerve branches, vertebral artery and herniated lumbar disc. • Washable and unbreakable. • On pelvic mounted stand with sturdy base sporting wheels. • PVC plastic.	
89	298	UV cabinet	TECHNICAL SPECIFICATION Model : Mild Steel, Powder Coated Size : 15" X 12" X 10" (H) View Piece : Alluminium Casting with Eye Protection Light Source : 3Nos A) Short Wave - 254 nm. B) Long Wave - 365 nm. Specification for PCR Thermal Cycler 1. 96 well x 0.2ml PCR tubes/ one 96 well plate/3X 32 wells 2. Gradient PCR = capable of testing 12 different temperatures simultaneously across a gradient range of 1-20 and a temperature gradient from 30 - 99° C, with minimum 0.1° C increment in gradient 3. Peltier based heating and cooling 4. Block heat rate: 5.0° C/Sec 5. Adjustable ramp rate 6. Sample ramp Rate: 4.4° C/S 7. Temperature Range: 4-99° C/S 8. Temperature accuracy: ± 0.2° C 9. Temperature Uniformity: ±0.3° C (20-70° C) 10. Gradient technology should ensure identical ramp rates in both gradient and normal	2
90	299	Thermal PCR		1

			operation	
			11. Lid temperature range of 55-110°C 12. Display: LCD touch Screen, about 8.5in. 13. Ports : USB ports 14. Programmable protocols, storage of minimum 1000 programmes 15. Programmed templates 16. Customisable programming allowing up to 20 steps and 99 cycles 17. Auto Restart facility with user defined time interval when power fails and resumes 18. Advanced security features. 19. Thermo block made of silver 20. Monitor should indicate the step, cycle and remaining runtime during the run 21. Minimum Two USB ports 22. Ethernet port 23. Log book function for error messages and new calibration 24. Power save Standby function 25. Should have calibration certificate from reputed international agencies 26. Certificate from reputed organisation or institutions mentioning no hazardous chemicals are present in the instrument. 27. Compatible UPS should be provided with minimum 1 hour backup 28. Minimum 1 year warranty 29. AMC terms & conditions beyond the warranty period to be specified	
91	300	Cold mini centrifuge	- Speed control range 1000 - 14500 rpm (increment 100 rpm) - Relative centrifugal force control range 50-12,400 × g - Digital time setting 15 s - 30 min (increment 15 s - 1 min) - Timer sound signal + - Rotor imbalance diagnostics (automatic stop, "IMBALANCE" warning) + - Acceleration time up to 14,500 rpm 20 s - Slowdown time, not more 10 s - Display LCD, 2 x 16 signs - Overall dimensions (W×D×H) 200x240x125 mm - Weight 3.5 kg - Input current/power consumption 24 V, 2.5 A / 60 W - External power supply Input AC 100-240 V 50/60 Hz, Output DC-24 V	1

92	359	DNA sequencer	Analysis	1	20.0	20,00,000	To
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93	364	Laboratory Water bath 12 Station	GeneMapper® Software, Sequencing Analysis Software, Variant Software: Capillary: 36cm, 50cm Length: Compatible: POP-4™, POP-6™, POP-7™ Polymers: Compatible 3500 Genetic Analyzer Capillary Array (36cm), 3500 Genetic Analyzer Products: Capillary Array (50cm), POP-4™ Polymer for 3500 3500xL Genetic Analyzers, POP-6™ Polymer for 3500 3500xL Genetic Analyzers, POP-7™ Polymer for 3500 3500xL Genetic Analyzers Current Limit: 15amps External Hard Drive: 2x 500GB SATA 3.0 Gb/s and 8 MB Data Burst Computer: Cache, Memory: 16GB (2x8GB) 1600MHz DDR3 Non-ECC 4th Gen Intel Core i7 Processor-3.1GHz Turbo Processor, Operating System: Windows 7 SPI For Use With 3500 Genetic Analyzer (Equipment): Format: 8-well strips, 96-well plate Number of 8 Capillaries Capillaries: Operating Humidity: 20%-80% (non-condensing), Room temp: <2° fluctuation Environment: during runs, Temperature: 15°C-30°C Operating Windows 7 (Service Pack 1) System Polymer Replace at earliest of 14 days/384 samples/60 injections (384-sample consumption: pouches), Replace at earliest of 14 days/96 samples/12 injections (96-sample pouches), Replace at earliest of 14 days/960 samples/120 injections (960-sample pouches) Read Length: >850bp using a 50cm capillary and POP-7™ polymer Throughput: Upto 424 samples per day (using run module HD36 POP-7) Voltage Limit: Electrophoresis Voltage- Upto 20kV	10	30,000	3,00,000	For heating the formulation
			Capillary: 36cm, 50cm Length: Compatible: POP-4™, POP-6™, POP-7™ Polymers: Compatible 3500 Genetic Analyzer Capillary Array (36cm), 3500 Genetic Analyzer Products: Capillary Array (50cm), POP-4™ Polymer for 3500 3500xL Genetic Analyzers, POP-6™ Polymer for 3500 3500xL Genetic Analyzers, POP-7™ Polymer for 3500 3500xL Genetic Analyzers Current Limit: 15amps External Hard Drive: 2x 500GB SATA 3.0 Gb/s and 8 MB Data Burst Computer: Cache, Memory: 16GB (2x8GB) 1600MHz DDR3 Non-ECC 4th Gen Intel Core i7 Processor-3.1GHz Turbo Processor, Operating System: Windows 7 SPI For Use With 3500 Genetic Analyzer (Equipment): Format: 8-well strips, 96-well plate Number of 8 Capillaries Capillaries: Operating Humidity: 20%-80% (non-condensing), Room temp: <2° fluctuation Environment: during runs, Temperature: 15°C-30°C Operating Windows 7 (Service Pack 1) System Polymer Replace at earliest of 14 days/384 samples/60 injections (384-sample consumption: pouches), Replace at earliest of 14 days/96 samples/12 injections (96-sample pouches), Replace at earliest of 14 days/960 samples/120 injections (960-sample pouches) Read Length: >850bp using a 50cm capillary and POP-7™ polymer Throughput: Upto 424 samples per day (using run module HD36 POP-7) Voltage Limit: Electrophoresis Voltage- Upto 20kV		0,000		determine nucleotide bases A, T, C and G of DNA by sequencing methods and for the establishment of central instrument at lab.

		Type:Single Walled Dimension:55 x 105 x 100 (mm) Accuracy:1 Degree C Hole Size:75mm In Diameter							113 of solvent
94	365	Digital Friability Test Apparatus	Digital Friability Test Apparatus is a precision instrument suitable for measuring obression strength of tablets. The unit is equipped with two transparent acrylic drums which rotate at a speed of 25 1 rpm. Each of the two acrylic drums are provided with an arm which carries the tablets along with it up to a predetermined height and allows them to fall from that specified height, while the drums are rotating. It is fitted with a digital revolution counter showing the current number of revolutions for the test. A thumb wheel switch is used to set the desired number of rotations. Provision is made to remove the lid of the acrylic drum by unscrewing just one knob. Seven segment LED display Sturdy motor to drive drums at constant speed, Display:3 digit bright red seven segment LED display, Accuracy:1 revolution,Resolution:1 revolution, Range:0-999 revolutions, No. of drums:02, Operating Temp. Range:10o-50oC, Power:230 V 10%, 50 Hz, AC, Dimension:230 mm (H) X 250 mm (W) X 540 mm (L) (Approx.), Accessories:Dust Cover, Warranty : 5 Yrs.	3	50,000	1,50,000	For the quality control checks of prepared tablets		
95	368	Filtration assembly (stainless Steel) With vacuum pump	Technical Details Number of Memory Sticks 1 Item Weight 7 kg 700 g Product Dimensions 53 x 41 x 23 cm; 7.7 Kilograms	2	75,000	1,50,000	Up-gradation of Laboratory		
96	369	Incubator	Item Height 23 Centimeters Item Width 41 Centimeters Depth int.: 330 mm , External	1	6,00,	6,00,000	As per		

97	370	Hot Air Oven	dimensions: (WxDxH)585 x 514 x 944 mm, Ext. depth: 514 mm, Ext. height: 944 mm, Ext. width: 585 mm, Height int.: 560 mm, Internal dimensions (WxDxH): 400 x 330 x 560 mm, Int. width: 400 mm, Material inserts: Stainless steel, Max. no. of inserts: 6, Max. temperature: 80 °C, Min. temperature: +5 °C, Nominal capacity: 74 l, Power supply: 230 V, 50/60 Hz, Rated capacity: 1250 W, Temperature: RT, Temperature: RT+5 ... 80 °C, With timer: Yes	5	20,000	1,00,000	Curriculum Requirements and Up-gradation of Laboratory
			Specifications • Capacity 250 Litre. • Temp range: +5°C to 200°C. • Control accuracy: ±0.5°C. • Uniformity: ± 2.0 at 100.0°C • Minimum 3 No. of Shelves with height adjustable in 25mm steps. • Glass window in-built into the door for easy viewing of samples. • Automatic cut off of heater & blower when door opened. • Digital PID temperature controller with timer, alarms and auto tuning. • Aero dynamic internal design for achieving horizontal air circulation. • Solid and plain bottom without electricals. • Outer body made of G.I Epoxy Coated • Inner body made of Stainless steel with clear bottom • CE certified. • Warranty period (minimum 1 year) to be mentioned. • AMC charges to be indicated.				As per Curriculum Requirements and Up-gradation of Laboratory

98	372	Laboratory hot plate	Plate design Rectangular and Round Temperature Up to 300°C Heating plate surface Stainless Steel 304 / Mild Steel / Cast Iron Cabinet MOC Powder coated MS Controller Thermostatic controller Power supply 220 Volts 50Hz Optional Digital temperature controller Temperature up to 500°C	5	22,000	1,10,000	To perform chemical reaction, to heat the samples and for numerous other activity
99	374	Colorimeter	Wave Length Range 400 to 700nm Resolution 1% T, 0.01 Abs., 1 Conc., 1 K Factor % Transmission 0 - 100% T Absorbance 0 - 1.99 A Concentration 0- 19999 K Factor 1 - 19999 Photo Detector Silicon Photodiode/Photo Cell Display 16x2 line alphanumeric LCD display with backlit for %T, Abs., Conc., K Factor Keyboard 8 Keys, soft touch membrane type Data Storage Upto 100 samples Light Source 6.8V, 0.3Amp. Tungsten Lamp Sample System 10 mm path length matched glass test tubes Filters 420, 440, 490, 520, 540, 570, 600, 700nm Printer Interface Centronics Parallel Printer interface for any dot matrix printer RS232C Interface Available (on request) Dimensions 240 x 254 x 90 mm (L x B x H) Weight 2.5 Kg. (Approx.) Power Supply 230V AC+10% 50Hz. with in-built stabilizer Accessories Matched Test Tube Set of 5, Operation Manual, Dust Cover, Spare Lamp Technical specifications: Operating Voltage : 230 V AC $\pm$ 10% 50 Hz Power Consumption : Less than 10 watts. Response Time : 3 to 6 Sec.. Operating Temp. : 50 to 450 c	5	40,000	2,00,000	To analysis of blood, water, soil, Nutrient and for determination of solution, concentration and reaction level etc.
100	375	Digital weighing machine		2	13,000	26,000	Laboratory

101	376	Isotest door frost free refrigerator	Over Loading Capacity : 150% Rated Capacity Display Designator : 7 Series and 1 PD Product Dimensions: 67.2D x 60W x 171.5H Centimeters Capacity : 322 litres Configuration : Freezer-on-Top Energy Star : 5 Star	5	2,12,000	For maintain cultures and specimen and different samples
102	377	Binocular microscope with camera	Head Binocular, 360° rotating, 30° inclined. Eyepiece Wide Field 10x/20mm Nosepiece Quadruple, reversed Objectives DIN E-PLAN Achromatic 4x/0.10, 10x/0.25, 40x/0.65, 100x/1.25 Stage Double layer, 150x139 mm with X-Y 75x33mm moving range Focusing Coaxial coarse and fine focusing Illuminator X-LED ² type with white LED; light intensity control using a knob on left side of the frame. LED power 3W, comparable to a 30-35W halogen bulb. Condenser Sliding-in, 1.25 N.A. Abbe type with adjustable height and iris diaphragm Power supply 100-240 Vac 50-60 Hz external power adapter 6Vdc output. Camera: Digital camera resolution: 3.14 MegaPixels Signal output: USB 2.0 Sensor size: 1/2.5"	5	80,000	For observation

Sensor technology: CMOS

Image format: 4/3 P, H, I

Image Size: 2048x1536. NO driver (microsoft driver).

Capture fetures: continuous auto exposure, image size, image capture, compressed video capture. +C415

Control parameters: brightness, gain, exposure time, colors, color enhancement.

Tablet PC:

Tablet 10.1"

2GB standard memory.

Hdd 32GB.

Windows 10 32-bit.

1.83 GHz

LED 10.1" IPS Multi Touch Screen,

1280x800

Binocular Microscope

103

378

SPECIFICATIONS of Stereo Dissecting Microscopes:

Stand: Dual light stand

Eye Tube: 45° Inclined, Binocular / Trinocular

Eyepieces: 10X-20mm

Objective: 1X-2X-4X revolving on turret

Total Magnification: 10X-20X-40X (10X Eyepiece)

Working distance: 90mm

Focus: Focusing knobs on stand

Illumination: Incident light LED 3.3W, sub-stage transmitted Light LED 3.3W, with illumination adjustable

Electrical: Universal power supply (110V-240V).

50

30,000

1,50,000

To study the cell structure and plant materials

			ISO-CE					
104	3/9	Heating Mantle of Various Size	Type of Product : Heating Mantle Voltage : 230 V Capacity : 10 L, 20L, 50L, 100 L Frequency : 50 Hz Application : Pharma, Medical, R&D, Bio-Technology, Life Science Labs	10	10,000	1,00,000	For the extraction of plant active constituents	
105	386	Dry Oven	Minimum Capacity-330 liter Hot Air Circulation-One path (in between the inner chamber and insulation) Maximum Temperature (degree Celsius)-Upto 350 Coating of Outer Chamber-Stoving Enamel Width-600 millimeter Maximum Capacity-10000 liter PID Micro Processor Temperature Controller Display-Dual Motorized blower-Move away forced air No. of Inner Trays-3 Working Temperature Range-250 degree Celsius Insulation-Glass wool PID Micro Processor Temperature Controller Sensitivity (degree Celsius)-+/- 1 PID Micro Processor Temperature Controller Range-250 degree Celsius Digital Timer-RS485 Port Length-600 millimeter Material of Outer Chamber-Mild Steel Height-600 millimeter Coating of Inner trays-Nichol plated Design of Inner trays-Adjustable Wires Mesh Material of Inner Chamber-Stainless Steel	1	2,00,000	2,00,000	As per Curriculum Requirements and Up-gradation of Laboratory	

106	390	Auto analyzer (Blood test)	Product Specifications Instrument Name Haematology Analyzer Number Of Chambers 2 Sample Volume Whole Blood : 9 micro L, Pre-diluted : 20 Micro L, Capillary : 20 Micro L Throughput 60 Tests/Hr Weight 25 Kg Data Storage 50,000 Results with Graphs Dimension 364x477x417 mm Operating Environment Temperature : 15-35 Degree C, Humidity : 30-85% Interfaces 4 USB + 1 LAN Port Power Requirement A.C.100-240V, 50/60Hz, 200VA Mode Type Whole Blood, Predilute, Capillary Linearity Range 0 - 300 (x 103/ Micro L) Calibrator ELite H Cal (3mL), Open Vial Stability at 2-8 DegreeC: 7 Days Histograms	2	2,00,000	4,00,000	Up-gradation of Laboratory
107	391	Microscope with CC TV camera (screen display)	Product Specification Sensor Size 1/2.3" (6.44mm(H) x 4.616mm(V)) Resolution 3584 x 2748 (approx. 10,000,000 pixels) Usage/Application Industrial	2	60,000	1,20,000	Up-gradation of Laboratory

108	392	Colony counter machine (microbiology)	General Details Automation Type Semi-Automatic Digital Display 3 digit Dish Size 110 mm Others Application Laboratory Dimensions L 260x B 220 x H 168 mm (approx) Weight 4 kg. (approx)	2	60,000	1,20,000	Up-gradation of Laboratory
109	393	Refrigerated Centrifuge	Material used for the work bench Stainless steel 304 grade Material used for the front door Acrylic transparent Material used for the Side panels Stainless steel 304 grade Availability of motorized sliding door LCD display for velocity, time & lamp on/off UV Hour meter UV Germicidal lamp DOP HEPA filter testing Digital Pressure Gauge with Alarm Availability of display Type of display LCD	2	35,000	70,000	As per Curriculum Requirements and Up-gradation of Laboratory
110	394	DISSECTING MICROSCOPE	Type pathological binocular non hinged type with built in light and with light intensity regulator ISI MARKED: Yes Eye piece Type Compensating Eye Piece with magnification Set of Two For Binocular 10x Objective Type Apochromatic Objective Magnification 100X Numerical Aperture of Objective 1.25 Extra eyepieces (inclusive in the scope of supply) 10 x	10	2,000	20,000	As per Curriculum Requirements and Up-gradation of Laboratory

111	396	ESR Analyser	Operation Mode Fully Automatic Working principle Westergren Method Type of samples Citrate Sample volume in ml 1ml to 2ml Throughput (Number of Sample) per hour 60 or more On board Quality control Yes Printer provided Inbuilt Type of printer Thermal Bar code Reader NA Mixer NA Mixer compliance with ICSH & CLSI guidelines Yes Provision of internal temperature correction NA Weather OEM is manufacturing control & calibrators Yes Types of consumables Disposable tubes Number of consumable supplied with machine 200 Control supplied with machines (low, medium, high is in 1 pks) No Display LCD Touch screen Yes Availability of Completely Dry automation for safety and biohazards and saving on waste management Yes HCT correction option available Yes LIS connectivity Yes USB port available 1 RS -232 Serial connection port 1 Loading type Random access Data Storage upto 1000 Graphical representation of Sedimentation Yes Real time view of actual plasma sedimentation fail Yes No of samples which can be load at time 15 or more Time for Analyser gives results Upto 30 min Automatic ESR samples sorting facility is	2	1,50,000	As per Curriculum Requirements and Up-gradation of Laboratory
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112	397	Binocular Forensic Microscope	Measuring range in mm 1-140 Sensor type Optical sensor Introduce CBC racks for ESR detection Yes Comprehensive Warranty in Years 3 Availability of toll free facility for technical support maintained by OEM or authorized agencies Yes SPECIFICATIONS of Stereo Dissecting Microscopes: Stand: Dual light stand Eye Tube: 45° Inclined, Binocular / Trinocular Eyepieces: 10X-20mm Objective: 1X-2X-4X revolving on turret Total Magnification: 10X-20X-40X (10X Eyepiece) Working distance: 90mm Focus: Focusing knobs on stand Illumination: Incident light LED 3.3 W, sub-stage transmitted Light LED 3.3 W, with illumination adjustable Electrical: Universal power supply (110V-240V), ISO-CE	15	40,000	6,00,000	To analyse smallest microprint and security features
113	401	Autoclave	Purpose Autoclaving of equipments, instrument etc for dental treatment Scope of Supply Autoclave, servo stabilizer, water tank and sterilization pouches Type of Loading Front Type of autoclave Table Top No of separators to hold different types of instruments/ materials 2 Sterilization Process Automatic Drying process Automatic Range of Capacity of autoclave in liters (Hint Seller to select the option based on capacity of autoclave offered) 20-22 Class type B Type of display with soft touch pad LED Material of construction of the perforated trays	5		4,50,000	Up-gradation of Laboratory

114	402	Water for HPLC Grade Preparation Unit	Anodized aluminum Porosity of microbacterial filter 0.3 micron Location of Antimicrobial filter The microbacterial filter is located inside the autoclave underneath autoclave to prevent dust from going inside the autoclave Number of error messages and warning systems available more than 30 sterilization holding time for short load over 3 minutes and less than or equal to 4 Minutes No of pre-programmed autoclaving cycles available 5 Availability of Prion Program sterilization holding time for prion programme in minutes 17-20 Door opening and closure indication Acoustic Facility to print temperature ,Pressure , time and date of cycle yes The item shall be supplied with an inbuilt water tank with automatic water level Servo stabiliser (atleast 3 Kva), provided either inbuilt or separate Yes Number of sterilization pouches of 10 cm width, made of paper and polypropylene, with thermal chemical indicator provided 1000 compatible distilled water plant manufactured by the same OEM Yes Part 1: High Quality Pre Filter Before Main Unit to counter the feed water contamination Manufactured by same equipment manufacturer not local made 1. Prefilter which can able to take care high TDS upto 5000 ppm and high SDI up to 50 having 1 Micron with DC diaphragm pump to boost water pressure from 0 to minimum 2.5 bar at approximately 120 L/hr with noise levels of Less than 50 Decibels. This must be equipped with Low pressure switch cuts off system when there is no water in the inlet line to protect the	1	15,00,000	For the preparation of purified water for analysis purpose
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irrespective of feed water temperature

8. System should be equipped with high waste recovery loop to reduce the water wastage to the drain.

9. Electro Deionization Module: A) Mixed bed ion exchange resin filled electro deionization module with auto regeneration by a weak electric current, B) EDI (Electro Deionization) module that should not require softening pre-treatment. C) Carbon beads at cathode of the EDI module to prevent scaling of the module on a long run.

10. Mercury free UV lamp after EDI for bactericidal effect will be preferred.

11. The Remote Water Delivery Unit should have a 5" full-color LCD touchscreen display to provide information: 1) on system status and performance parameters, 2) on routine maintenance needs and maintenance procedures, 3) on alarms for troubleshooting in the event of system malfunction, and 4) on system history and data downloading. A "Dispense Report" should be created after each dispensing event, including the water quality, volume drawn, date and time.

12. Systems Consumables Traceability via RFID tag technology.

Part -3:- Specifications for Bottom feed Storage Reservoir

A. The reservoir itself shall have an integrated mercury-free, LED-based UV lamp to automatically sanitize the interior reservoir surfaces, minimizing the risk of bacteria and biofilm proliferation in the reservoir.

B. The lamp will have a 2 years lifetime.

C. All water from the reservoir will be periodically recirculated through the post-EDI UV lamp to ensure low bacteria and biofilm levels.

D. The reservoir itself shall have an electrical

				overflow sensor to eliminate the risk of drain retro-contamination. E. Tank capacity minimum 25 L. Part -4:- Specifications for ultrapure water purification system Product Water Quality with Suitable pretreated water feed: Ultrapure (Type 1) water: Typical Water Delivery Flow Rate from Q-POD® (L/min) 0.5 to 2 Ultrapure Water Resistivity (MΩ.cm at 25°C) 18.2 Microorganisms (cfu/mL) – with < 0.01 TOC (ppb) ≤ 5 1. The water system has a built-in UV lamp with emission at 185 nm and 254 nm wavelength. The lamp will operate for 2 years without replacement in order to reduce operating costs and the maintenance procedures. 2. 2 Polishing cartridges of mixed bed resins. 3. The system will have a choice of 6 point-of-use final filters on the water dispenser to support different applications. 4. The system should have provision to install water Point-of-Delivery on a wall-mounted support for full flexibility of installation. 5. The system should have, basic information of water quality or any alert / alarm information should be shared at point of delivery . 6. 7" touchscreen with bright color LCD display compatible with gloves and wet or dry hands. The screen is either fixed on the system or can be wall mounted. 8. The performance parameters should be
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- checked at each step on the water flow schematic to ensure the quality expected water
9. Only one single inline photo-oxidation UV lamp allows both to reduce organics in ultrapure water and to measure TOC level.
 10. Inline TOC indicator is being measure at the point of use and displayed on the touchscreen after each dispense.
 11. The water purification system is able to report the resistivity and conductivity in both temperature compensated and non-temperature compensated formats. The resistivity meters are able to be verified and calibrated on-site.
 12. The system can be connected to the local network via an Ethernet port and has a USB key port.
 13. Water dispensing reports record all dispensing parameters (water quality and volume, date and time). Dispensing reports can be stored without time limit.
 14. The volumetric water dispensing to deliver a specific water volume, from 100mL to 25L automatically (with 100 mL incremental). A quick volumetric dispensing is also accessible from a pre-set menu of customizable water volumes.
 16. Lab Close mode to saves energy and reduces wear of system components. The system automatically resumes hourly recirculation 24 hours prior to resuming lab activity, ensuring the system is ready for use.
 17. Check and dispense LEDs should be embedded on the support of the Point-of-Delivery, the key information is at the point of dispensing.
 18. Instruction manual should be provided. Supporting documents wherever required and original catalogue should be provided to validate

115	404	Distillation unit	specifications. To verify the above technical specification provided catalogue & flow schematic must match on their global website for quoted model. Distillation Column Diameter 21 mm Large Diameter Provides Maximum Throughput Distillation Column Length 90 cm Long Column Provides Maximum Separation Distillation Column Jacket Vacuum Jacket and Silvered "Mirror" Prevents Heat Loss from Distillation Column (Adiabatic) Condenser Inner Coil and Outer Jacket High Surface Area for Efficient Condensing High Surface Area for Efficient Condensing Cools Distillate Further Before Going to Receiver Distillate in Receiver is Close to Room Temperature Boiler Heater Electrical Clean, Safe Heating of Boiler Boiler Sizes 1,2,3,5,12,22 and 50 liter sizes Available in Glass for Easy Viewing of Sample Boiler Stirring Standard Promotes Even Boiling and Gentle Heat Transfer Spinning Band Types Teflon - Operates up to 225 °C Stainless Steel - Operates Above 225 °C High Efficiency and High Temperature Bands Maximum Theoretical Plates Teflon Band - 50 Stainless Steel - 20 High Efficiency Separation Combined with Low "Hold Up"	1	1,25,000	Purification of water
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Condensing Bath
Optional Circulating Bath

Optional Bath 1 0- 40 C
Optional Bath 2 -20 to 100 C
Automatically Cools and Heats Condenser
Fraction Collector
Standard: 2 Place

Optional: 4 Place or 8 Place

Automatically Collect Fractions According to
Vapor Temperature
Vacuum Operation
Optional Vacuum System

100-1 mmHg Range
Other Ranges Available
Automatic Control of Vacuum Level. Vacuum
Reduces Boiling Points. Ideal for Thermally
Sensitive Samples or High Boiling Materials
Automatic Controller Provides Automatic
Control of the Entire Distillation Process Start the
Distillation and Walk Away
PC Optional Control From PC Perform a
Distillation from a PC Analyze Distillation
Results using our "Data View" Program.
Safety Marks

CE Marked

Listed to UL 6101.1 by ETL
Listed to CSA C22.2 1010.1 by ETL
C TICK (Australia/NZ)
Safe for Laboratory Use
Power (Distillation Unit Only)
1-22 liter (115 V) 15 amps
1-22 liter (220 V) 8 amps
50 liter (220V) 15 amps

Configured for Local Power Requirements and
with Local Power Plug, 115 or 220 V, 50/60Hz



Other Utilities Required Cooling Water or Circulating Bath For Condenser						
116	416	Digital pH Meter	Display: LED / LCD / Touch Screen: 3 digits Calibration: up to 3 points with auto buffer pH Range (pH): 0.00 to 14.00 Accuracy (pH): ± 0.05 Corrosion Resistant: Yes Power Requirements: 230 V $\pm$ 10, 50 Hz AC Modes: pH mV-C Parallel temperature indication: Yes Temperature Compensation Type: Manual Temperature Accuracy (Degree C): ± 0.3 Temperature Compensation Range (Degree C): 0 to 100 Resolution (pH): 0.01 Operating Humidity: RH in (%): 45 Operating Temperature (Degree C): 40 The Complete Ultrapure Water system must give ASTM Type III pure and Type I ultrapure water from a single system	30	9,00,000	To check the pH of prepared formulations etc.
117	421	HPLC Grade Water Preparation Unit	• System should consist of only 1 individual RO Membrane whose permeate flow rate should be 8 litres/hr. • Re-circulation feature in standby mode to maintain the purity of the water. • System must be able to provide 8 litres/hr of Type III water and 60 lit/hr of Type I water. • System should have facility to dispense water in 2 Dispensing Modes: i) Manual ii) Volume • The system should have volume-controlled dispensing for dispensing Type I water between 50 ml to 5 l (in 50-ml-increments) to obtain	2	30,00,000	For the preparation of pure water for the analysis of chemicals, drugs etc

accurate results.

- System should have favorite volume function feature to dispense the last dispensed volume of Type 1 water.

- System must have Top Down Flow technology inside the cartridge.

- System should have an Integrated Horizontally placed UV oxidation chamber with dual wavelength 185 and 254nm capable of reducing TOC levels < 5 ppb

- Final Filter should be $0.45 + 0.2\mu\text{m}$ pleated double layered sterile grade PESU membrane and should be validated according to HIMA & ASTM F-838-83 guidelines.

- System should be Designed, Developed and Produced under DIN/ISO 9001 certificate Quality Management system.

- System must have unique flexible glass touch display with intuitive menu navigation for easy operation & self-diagnostic facility.

- Glass display with touch function should display conductivity of permeate water & Tank level.

- System information: It should display measured values for product water, count down for next recommended consumable replacement, user friendly alert management with follow up function etc.

- System should automatically stop the operation of the system in case of any water leakage occurs inside the system.

- Ultra filter for efficient removal of endotoxin, RNAs & DNAs, microorganisms & Particle.

- PRE FILTER SYSTEM 25 LPH RO PLANT WITH HPS NRV.

RO Water Storage Tank

- System should have integrated storage facility.
- The system should come with inbuilt closed loop of 5 liter storage capacity to store high quality RO water and prevent Contamination by ambient air. It should have technology to avoid time consuming cleaning process as well as use of chemicals.
- Inbuilt Storage should have capacity of 5 litres with distribution pump & should be made up of EVA (Ethylene Vinyl Acetate) film material & not polypropylene tank.

Technical Specifications: Type I
 Output : 60 lit/hr
 Water dispensing flow rate: Upto 1 lit/min
 Conductivity: 0.05 μ S/cm compensated to 25°C
 Resistivity: 18.2 M Ω -cm compensated to 25°C
 TOC : < 5 ppb
 Microorganism content : <1cfu/100 ml
 Particle content : <1/ml
 RNAS: <1 pg/ml
 DNAS: <5 pg/ml

Toughened glass window ,Air circulation fan ,Removable tray , Temperature sensor ,PID temperature controller ,Caster wheels ,Door handle with lock & key
 Optional Features available in BOD Incubator
 Digital event timer
 No of Trays 5
 Air Circulation Axial fan
 Exterior body material Powder Coated GI sheet
 Insulation material Glass wool
 Outer door material Powder Coated GI sheet
 Inner door material Material of removable tray
 Acrylic Sheet
 Material of removable tray Stainless Steel wire mesh Tray
 Chamber Capacity (in lit) 300-349

For microbiology and pharmacy purpose

4,50,000

5

BOD Incubator

428

118

