



**Pre-feasibility Study**

# **DIAGNOSTIC LABORATORY**

**April 2022**

*“The figures and financial projections are approximate due to fluctuations in exchange rates, energy costs, and fuel prices etc. Users are advised to focus on understanding essential elements such as production processes and capacities, space, machinery, human resources, and raw material etc. requirements. Project investment, operating costs, and revenues can change daily. For accurate financial calculations, utilize financial calculators on SMEDA's website and consult financial experts to stay current with market conditions.”*

**Small and Medium Enterprises Development Authority**  
Ministry of Industries and Production  
Government of Pakistan

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## 1 DISCLAIMER

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### ***Document Control***

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## **2 EXECUTIVE SUMMARY**

**Diagnostic Laboratory** is proposed to be located at Quetta or any other place near hospitals and clinics all over Pakistan. This laboratory has the capacity to conduct 35 types of Medical test at the proposed location. The initial capacity utilization is **75%**, because the diseases are spreading very fast and the laboratories are high in demand, with 3% increase annually and maximum utilization is 95%.

Total Cost Estimates is **Rs. 5,636,922** with fixed investment **Rs. 4,811,368** and working capital **Rs. 825,554**.

Given the cost assumptions IRR and payback are **27%** and **4.46 years** respectively

The most critical considerations or factors for success of the project are: Location of the project is of prime importance, Selection of technical / skilled staff would be very crucial decision to be made by the management, Continuous efforts should be made for up-gradation of the technology and the most important factor for the success of the project is the quality of service provided to the patients and atmosphere.

### 3 INTRODUCTION TO SMEDA

The Small and Medium Enterprises Development Authority (SMEDA) was established in October 1998 with an objective to provide fresh impetus to the economy through development of Small and Medium Enterprises (SMEs).

With a mission "to assist in employment generation and value addition to the national income, through development of the SME sector, by helping increase the number, scale and competitiveness of SMEs", SMEDA has carried out 'sectoral research' to identify policy, access to finance, business development services, strategic initiatives and institutional collaboration and networking initiatives.

Preparation and dissemination of prefeasibility studies in key areas of investment has been a successful hallmark of SME facilitation by SMEDA.

Concurrent to the prefeasibility studies, a broad spectrum of business development services is also offered to the SMEs by SMEDA. These services include identification of experts and consultants and delivery of need based capacity building programs of different types in addition to business guidance through help desk services.

### 4 PURPOSE OF THE DOCUMENT

The objective of the pre-feasibility study is primarily to facilitate potential entrepreneurs in project identification for investment. The project pre-feasibility may form the basis of an important investment decision and in order to serve this objective, the document/study covers various aspects of project concept development, start-up, and production, marketing, finance and business management.

The purpose of this document is to facilitate potential investors in **Diagnostic Laboratory** by providing them with a general understanding of the business with the intention of supporting potential investors in crucial investment decisions.

The need to come up with pre-feasibility reports for undocumented or minimally documented sectors attains greater imminence as the research that precedes such reports reveal certain thumb rules; best practices developed by existing enterprises by trial and error, and certain industrial norms that become a guiding source regarding various aspects of business set-up and its successful management.

Apart from carefully studying the whole document one must consider critical aspects provided later on, which form basis of any Investment Decision.

## 5 BRIEF DESCRIPTION OF PROJECT & PRODUCT

Following key parameters must be addressed as per pre-feasibility study under preparation

- **Technology:** This proposed diagnostic laboratory includes modern machinery and equipment to provide diagnostic services to the patients.
- **Location:** The Diagnostic Laboratory should be established at a location that is easily accessible and has population concentration or the appropriate place would be near private or public hospitals.
- **Product:** The proposed diagnostic laboratory will be capable of conducting Biochemistry, Haematology, serology, histopathology, microbiology and chemical pathology tests.
- **Target Market:** The proposed Diagnostic laboratory can be established in Quetta/any other district of Balochistan or all over Pakistan.
- **Employment Generation:** The proposed project will provide direct employment to 6 people.

### 5.1 Installed and Operational Capacities

The diagnostic laboratory has a testing capacity of 11,040/ Year approximately and will be operational for 330 days a year and 12 hours a day. Initially the laboratory will be operated at 75 % the capital utilization and will increase it by 3% yearly. The Maximum capacity utilization will be 95%.

## 6 CRITICAL FACTORS

- Location of the project is of prime importance.
- Selection of technical / skilled staff would be very crucial decision to be made by the management.
- Continuous efforts should be made for up-gradation of the technology.
- The most important factor for the success of the project is the quality of service provided to the patients and atmosphere.

## 7 GEOGRAPHICAL POTENTIAL FOR INVESTMENT

Pakistan is a densely populated Country. At least one-thirds of the population is living below the poverty line, which has no access to clean water and lacks proper sanitation facilities. These handicaps pose a serious threat to the health of the masses. Moreover, the overlapping and harsh climate of Pakistan causes major viral diseases throughout the year. This creates a great demand for Diagnostic Laboratories in Pakistan. A big investment opportunity exists in this sector. Introduction of latest technology, hygienic environment and professional staff also contribute to the popularity of private sector hospitals and laboratories. Increasing trend of medical diagnosis through scientific medical tests has increased the need of high capital investment in this sector. Investment in the private sector can, therefore, exploit this opportunity and provide latest and dependable diagnostic services on round-the-clock basis.

## 8 POTENTIAL TARGET CUSTOMERS / MARKETS

Pakistan is the seventh populous country in the world. According to the census of 1998, the population of Pakistan was 132.35 million which rose to 207.77 million in 2017 (Pakistan Bureau of Statistic). This growth rate is a tremendous challenge to the existing infrastructure, which has resulted in high level of environmental pollution, and especially, it affects the health care system in the country. This has given rise to demand of private sector health care facilities.

The demand for diagnostic laboratory is rising in accordance with the increase in population and diseases. The number of existing laboratories is not as high to meet the growing demand of tests.

There are number of diagnostic laboratories, which are operate in organized sector in Pakistan but this industry has not yet developed to any sizeable extent in Balochistan, which is hardly enough to satisfy the domestic demand.

## 9 PROJECT COST SUMMARY

### 9.1 Project Economics

All the figures in this financial model have been calculated for estimated revenue of **Rs. 5,394,627** in the year one. The capacity utilization during year one is worked out at 75% with 3% increase in subsequent years up to the maximum capacity utilization of 95%.

The following table shows internal rate of return, payback period and net present value of the proposed venture.

**Table 1: Project Economics**

Description	Details
Internal Rate of Return (IRR)	27%
Payback Period (yrs.)	4.46
Net Present Value (Rs.)	3,249,243

## 9.2 Project Financing

Following table provides details of the equity required and variables related to bank loan;

**Table 2: Project Financing**

Description	Details
Total Equity (50%)	Rs. 2,818,461
Bank Loan (50%)	Rs. 2,818,461
Markup to the Borrower (%age / annum)	16%
Tenure of the Loan (Years)	5

## 9.3 Project Cost

Following fixed and working capital requirements have been identified for operations of the proposed business.

**Table 3: Project Cost**

Description	Amount Rs.
<b>Capital Cost</b>	
Building Renovation	500,000
Plant and Machinery	2,553,000
Furniture & Fixture	380,000
Office vehicles	875,500



Office Equipment	250,000
Pre-operating Cost	202,868
Training cost	50,000
<b>Total Capital Cost</b>	<b>4,811,368</b>
<b>Working Capital</b>	
Raw Material Inventory	42,697
Up-front Building Rent	576,000
Insurance payment	6,857
Cash	200,000
<b>Total Working Capital</b>	<b>825,554</b>
<b>Total Project Cost</b>	<b>5,636,922</b>

#### 9.4 Space Requirement

The space requirement for the proposed **Diagnostic Laboratory** is estimated considering various facilities including Reception, waiting room, diagnostic room, storeroom, washroom, cleanroom and generator room and rent is given below;

**Table 4: Space Requirement**

Description	Estimated Area (Sqft)
Reception	100
Waiting room	400
Diagnostic room	625
Storeroom	100
Washroom	75
Cleaner room	64
Generator room	25
<b>Total Area</b>	<b>1389 (Sqft)</b>
<b>Rent (12 Months)</b>	<b>Rs. 576,000</b>
<b>Renovation Amount</b>	<b>Rs. 500,000</b>

## 9.5 Machinery & Equipment Requirement

Plant, machinery and equipment for the proposed project are stated below.

**Table 5: Machinery & Equipment**

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Blood Analyzer	1	680,000	680,000
Binocular Microscope	1	178,000	178,000
Clinical Water Bath	1	50,000	50,000
200L Biochemical shaking incubator	1	450,000	450,000
ELISA for Hormone Analysis	1	300,000	300,000
Centrifuge Machine	1	65,000	65,000
Colorimeter	1	150,000	150,000
Weight Machine	4	5,000	20,000
Generator	1	50,000	50,000
Miscellaneous Lab Equipment	1	500,000	500,000
<b>Total</b>			<b>2,553,000</b>

## 9.6 Furniture & Fixtures Requirement

Details of the furniture and fixture required for the project are given below;

**Table 6: Furniture & Fixture**

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Furniture	1	100,000	100,000

Water Dispenser	1	15,000	15,000
Refrigerator	1	45,000	45,000
Air conditioner (split 1.5 tons)	2	75,000	150,000
Electricity wiring and stabilizer	1	70,000	70,000
<b>Total</b>			<b>380,000</b>

## 9.7 Office Equipment Requirement

Following office equipment will be required for Diagnostic laboratory;

**Table 7: Office Equipment**

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Desktops (Core i7)	2	60,000	120,000
Printer	1	40,000	40,000
Scanner	1	20,000	20,000
Telephones	3	5,000	15,000
Fax Machine	1	35,000	35,000
Cabling	1	20,000	20,000
<b>Total</b>			<b>250,000</b>

## 9.8 Human Resource Requirement

In order to run operations of Diagnostic laboratory smoothly, details of human resources required along with number of employees and monthly salary are recommended as under;

**Table 8: Human Resource Requirement**

Description	No. of Employees	Monthly Salary per person (Rs.)
Manager + Accountant	1	50,000
Lab Technicians	2	25,000
Receptionist	1	22,000

Sweeper	1	20,000
Driver	1	20,000

### 9.9 Utilities and other costs

An essential cost to be borne by the project is the cost of electricity. The electricity expenses are estimated to be around Rs, 40,000 per month and total utility expense will be 42,500 per month. Furthermore, promotional expense being essential for marketing of Diagnostic laboratory is estimated as 5 % of administrative / Cost of Sales expenses.

### 9.10 Revenue Generation

Based on the capacity utilization of 90%, respectively, sales revenue during the first year of operations is estimated as under;

**Table 9: Revenue Generation – Year 1**

Description	Avg Price/Test	Avg Cost/Test	No. of Test During Y1	Sale Price / unit (Rs.)
Sugar Glucose	240	76	540	129,600
Uric Acid	300	95	540	162,000
Urea	300	95	360	108,000
Creatinine	300	95	300	90,000
Cholesterol	450	143	300	135,000
Triglyceride	300	95	300	90,000
High density Lepo protein Cholesterol	1,650	523	300	495,000
Low density Lepo protein Cholesterol	1,650	523	300	495,000
Lever function tests	450	143	180	81,000

Cardiac enzymes	750	238	180	135,000
Cells related tests	450	143	540	243,000
CBC	450	143	540	243,000
CP	450	143	540	243,000
ESR	150	48	300	45,000
Platelets	450	143	300	135,000
Coagulations profile	450	143	360	162,000
Peripheral smear	450	143	360	162,000
Hepatitis A	600	190	360	216,000
Hepatitis B	450	143	240	108,000
Hepatitis C	450	143	240	108,000
HIV	900	285	60	54,000
VDRL	600	190	540	324,000
Typhoid	450	143	540	243,000
Vidal	450	143	360	162,000
Remo tide Arthritis factor (RA Factor)	450	143	180	81,000
Biopsies	2,400	760	180	432,000
Pap smear	1,200	380	120	144,000

Malignant cell	1,200	380	120	144,000
Cytology	900	285	120	108,000
Culture and Sensitivity	900	285	360	324,000
Blood	900	285	360	324,000
Urine	900	285	360	324,000
Urine D.R	450	143	300	135,000
Stool D.R	240	76	180	43,200
Pregnancy tests	300	95	180	54,000
<b>Total</b>			<b>11,040</b>	<b>Rs. 6,481,800</b>

## 10 CONTACT DETAILS

In order to facilitate potential investors, contact details of private sector Service Providers relevant to the proposed project be given.

### 10.1 Machinery Suppliers

Name of Supplier	Address	Phone	Fax	E-mail	Website
MED LAB SERVICES	Office No. 1, 1st Floor, ABC Plaza, Commercial Center, Satellite Town, Rawalpindi Pakistan	+92-51-442 3895 & +92-51-441-93-41	+92-51-445 6995	info@medlab.com.pk mls@medlab.com.pk	<a href="http://www.medlab.com.pk/">http://www.medlab.com.pk/</a>
ABBOTT	Abbott Laboratories(Pakistan) Limited, Opposite Radio Pakistan Transmission, Hyderabad Road,	(+92-21) 111-222-688	(+92-21) 35069748-49		<a href="https://www.pk.abbott/homepage.html">https://www.pk.abbott/homepage.html</a>

	Landhi. Karachi -75120				
Lab-line	98, National Medicine Market, Arambagh Road Karachi 74200	+92326 26097, +92326 26888		info@labline.biz	https://www.labline.biz/
Global Marketing Services	111, Hali Road, Westridge 1, Rawalpindi, Pakistan	+92-51- 111- 145-236	+92-51- 8314413	info@gms-world.com	www.gms-world.com

## 11 USEFUL WEB LINKS

<b>Small &amp; Medium Enterprises Development Authority (SMEDA)</b>	<a href="http://www.smeda.org.pk">www.smeda.org.pk</a>
<b>Government of Pakistan</b>	<a href="http://www.pakistan.gov.pk">www.pakistan.gov.pk</a>
<b>Ministry of Industries &amp; Production</b>	<a href="http://www.moip.gov.pk">www.moip.gov.pk</a>
<b>Ministry of Education, Training &amp; Standards in Higher Education</b>	<a href="http://moptt.gov.pk">http://moptt.gov.pk</a>
<b>Government of Punjab</b>	<a href="http://www.punjab.gov.pk">www.punjab.gov.pk</a>
<b>Government of Sindh</b>	<a href="http://www.sindh.gov.pk">www.sindh.gov.pk</a>
<b>Government of Khyber Pakhtunkhwa</b>	<a href="http://www.khyberpakhtunkhwa.gov.pk">www.khyberpakhtunkhwa.gov.pk</a>
<b>Government of Balochistan</b>	<a href="http://www.balochistan.gov.pk">www.balochistan.gov.pk</a>
<b>Government of Gilgit Baltistan</b>	<a href="http://www.gilgitbaltistan.gov.pk">www.gilgitbaltistan.gov.pk</a>
<b>Government of Azad Jamu Kashmir</b>	<a href="http://www.ajk.gov.pk">www.ajk.gov.pk</a>
<b>Trade Development Authority of Pakistan (TDAP)</b>	<a href="http://www.tdap.gov.pk">www.tdap.gov.pk</a>
<b>Security Commission of Pakistan (SECP)</b>	<a href="http://www.secp.gov.pk">www.secp.gov.pk</a>
<b>Federation of Pakistan Chambers of Commerce and Industry (FPCCI)</b>	<a href="http://www.fpcci.com.pk">www.fpcci.com.pk</a>
<b>State Bank of Pakistan (SBP)</b>	<a href="http://www.sbp.org.pk">www.sbp.org.pk</a>
<b>Punjab Small Industries Corporation</b>	<a href="http://www.psic.gop.pk">www.psic.gop.pk</a>
<b>Sindh Small Industries Corporation</b>	<a href="http://www.ssic.gos.pk">www.ssic.gos.pk</a>
<b>Pakistan Horticulture Development and Export Company (PHDEC)</b>	<a href="http://www.phdec.org.pk">www.phdec.org.pk</a>
<b>Punjab Vocational Training Council (PVTc)</b>	<a href="http://www.pvtc.gop.pk">www.pvtc.gop.pk</a>
<b>Technical Education and Vocational Training Authority (TEVTA)</b>	<a href="http://www.tevta.org">www.tevta.org</a>
<b>Pakistan Readymade Garment Technical Training Institute</b>	<a href="http://www.prgmea.org/prgtti/">www.prgmea.org/prgtti/</a>
<b>Livestock &amp; Dairy Development Department, Government</b>	<a href="http://www.livestockpunjab.gov.pk">www.livestockpunjab.gov.pk</a>

<b>of Punjab.</b>	
<b>Punjab Industrial Estates (PIE)</b>	<a href="http://www.pie.com.pk">www.pie.com.pk</a>
<b>Faisalabad Industrial Estate Development and Management Company (FIEDMC)</b>	<a href="http://www.fiedmc.com.pk">www.fiedmc.com.pk</a>



## 12 ANNEXURES

### 12.1 Income Statement

Statement Summaries										SMEDA
Income Statement										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Rs. in actuals Year 10
Revenue	5,394,627	6,221,320	7,106,746	8,107,044	9,236,334	10,510,412	11,946,942	13,425,505	14,770,647	16,247,712
Cost of goods sold	2,200,310	2,514,899	2,848,921	3,224,594	3,646,909	4,121,438	4,654,401	5,208,047	5,727,061	6,296,717
Gross Profit	3,194,317	3,706,421	4,257,825	4,882,450	5,589,425	6,388,974	7,292,540	8,217,458	9,043,586	9,950,995
<i>General administration &amp; selling expenses</i>										
Administration expense	1,507,920	1,654,733	1,815,840	1,992,633	2,186,639	2,399,533	2,633,155	2,889,523	3,170,851	3,479,569
Rental expense	576,000	633,600	696,960	766,656	843,322	927,654	1,020,419	1,122,461	1,234,707	1,358,178
Utilities expense	42,500	46,500	50,900	55,740	61,064	66,920	73,362	80,490	88,243	96,819
Travelling & Comm. expense (phone, fax, etc.)	29,280	32,131	35,259	38,692	42,459	46,593	51,129	56,107	61,570	67,564
Office vehicles running expense	26,265	28,892	31,781	34,959	38,455	42,300	46,530	51,183	56,301	61,931
Office expenses (stationary, etc.)	14,640	16,065	17,630	19,346	21,230	23,296	25,565	28,054	30,785	33,782
Promotional expense	26,973	31,107	35,534	40,535	46,182	52,552	59,735	67,128	73,853	81,239
Insurance expense	6,857	6,171	5,486	4,800	4,114	3,429	2,743	2,057	1,371	686
Professional fees (legal, audit, etc.)	26,973	31,107	35,534	40,535	46,182	52,552	59,735	67,128	73,853	81,239
Depreciation expense	430,850	430,850	430,850	430,850	430,850	430,850	430,850	430,850	430,850	430,850
Amortization expense	45,574	45,574	45,574	45,574	45,574	5,000	5,000	5,000	5,000	5,000
Property tax expense	-	-	-	-	-	-	-	-	-	-
Miscellaneous expense	161,839	186,640	213,202	243,211	277,090	315,312	358,408	402,765	443,119	487,431
Subtotal	2,895,671	3,143,369	3,414,549	3,713,531	4,043,159	4,365,991	4,766,630	5,202,745	5,670,504	6,184,288
Operating Income	298,646	563,052	843,276	1,168,919	1,546,267	2,022,983	2,525,910	3,014,713	3,373,082	3,766,707
Other income	-	-	-	-	-	-	-	-	-	-
Gain / (loss) on sale of assets	-	-	-	-	-	-	-	-	-	-
Earnings Before Interest & Taxes	298,646	563,052	843,276	1,168,919	1,546,267	2,022,983	2,525,910	3,014,713	3,373,082	3,766,707
Interest expense	412,229	328,940	264,015	188,703	101,340	-	-	-	-	-
Earnings Before Tax	(113,583)	234,112	579,261	980,216	1,444,926	2,022,983	2,525,910	3,014,713	3,373,082	3,766,707
Tax	-	-	-	-	-	-	-	-	-	-
<b>NET PROFIT/(LOSS) AFTER TAX</b>	<b>(113,583)</b>	<b>234,112</b>	<b>579,261</b>	<b>980,216</b>	<b>1,444,926</b>	<b>2,022,983</b>	<b>2,525,910</b>	<b>3,014,713</b>	<b>3,373,082</b>	<b>3,766,707</b>
Balance brought forward		(113,583)	120,529	699,790	1,680,006	3,124,932	5,147,915	7,673,825	10,688,538	14,061,620
Total profit available for appropriation	(113,583)	120,529	699,790	1,680,006	3,124,932	5,147,915	7,673,825	10,688,538	14,061,620	17,828,327
Dividend	-	-	-	-	-	-	-	-	-	-
Balance carried forward	(113,583)	120,529	699,790	1,680,006	3,124,932	5,147,915	7,673,825	10,688,538	14,061,620	17,828,327

## 12.2 Balance Sheet

Statement Summaries											SMEDA
Balance Sheet											Rs. in actuals
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
<b>Assets</b>											
<i>Current assets</i>											
Cash & Bank	727,897	315,573	607,026	1,175,090	2,066,058	3,331,111	5,763,218	8,695,344	12,114,835	15,887,864	20,400,631
Accounts receivable	-	14,780	15,912	18,258	20,841	23,758	27,050	30,763	34,757	38,625	42,491
Finished goods inventory	-	18,490	20,964	23,748	26,880	30,400	34,355	38,797	43,408	47,726	52,473
Equipment spare part inventory	103	119	136	155	177	202	230	260	286	316	-
Raw material inventory	42,697	51,702	62,014	74,279	88,858	106,171	126,716	149,518	172,724	199,496	-
Pre-paid annual land lease	-	-	-	-	-	-	-	-	-	-	-
Pre-paid building rent	48,000	52,800	58,080	63,888	70,277	77,304	85,035	93,538	102,892	113,181	-
Pre-paid lease interest	-	-	-	-	-	-	-	-	-	-	-
Pre-paid insurance	6,857	6,171	5,486	4,800	4,114	3,429	2,743	2,057	1,371	686	-
<b>Total Current Assets</b>	<b>825,554</b>	<b>459,635</b>	<b>769,618</b>	<b>1,360,219</b>	<b>2,277,205</b>	<b>3,572,375</b>	<b>6,039,347</b>	<b>9,010,277</b>	<b>12,470,273</b>	<b>16,287,893</b>	<b>20,495,594</b>
<i>Fixed assets</i>											
Land	-	-	-	-	-	-	-	-	-	-	-
Building/Infrastructure	500,000	475,000	450,000	425,000	400,000	375,000	350,000	325,000	300,000	275,000	250,000
Machinery & equipment	2,553,000	2,297,700	2,042,400	1,787,100	1,531,800	1,276,500	1,021,200	765,900	510,600	255,300	-
Furniture & fixtures	380,000	342,000	304,000	266,000	228,000	190,000	152,000	114,000	76,000	38,000	-
Office vehicles	875,500	787,950	700,400	612,850	525,300	437,750	350,200	262,650	175,100	87,550	-
Office equipment	250,000	225,000	200,000	175,000	150,000	125,000	100,000	75,000	50,000	25,000	-
<b>Total Fixed Assets</b>	<b>4,558,500</b>	<b>4,127,650</b>	<b>3,696,800</b>	<b>3,265,950</b>	<b>2,835,100</b>	<b>2,404,250</b>	<b>1,973,400</b>	<b>1,542,550</b>	<b>1,111,700</b>	<b>680,850</b>	<b>250,000</b>
<i>Intangible assets</i>											
Pre-operation costs	202,868	162,294	121,721	81,147	40,574	-	-	-	-	-	-
Legal, licensing, & training costs	50,000	45,000	40,000	35,000	30,000	25,000	20,000	15,000	10,000	5,000	-
<b>Total Intangible Assets</b>	<b>252,868</b>	<b>207,294</b>	<b>161,721</b>	<b>116,147</b>	<b>70,574</b>	<b>25,000</b>	<b>20,000</b>	<b>15,000</b>	<b>10,000</b>	<b>5,000</b>	<b>-</b>
<b>TOTAL ASSETS</b>	<b>5,636,922</b>	<b>4,794,580</b>	<b>4,628,139</b>	<b>4,742,316</b>	<b>5,182,878</b>	<b>6,001,625</b>	<b>8,032,747</b>	<b>10,567,827</b>	<b>13,591,973</b>	<b>16,973,743</b>	<b>20,745,594</b>
<b>Liabilities &amp; Shareholders' Equity</b>											
<i>Current liabilities</i>											
Accounts payable	-	33,827	39,052	44,671	51,033	58,231	66,371	75,541	84,974	93,662	98,806
Export re-finance facility	-	-	-	-	-	-	-	-	-	-	-
Short term debt	-	-	-	-	-	-	-	-	-	-	-
Other liabilities	-	-	-	-	-	-	-	-	-	-	-
<b>Total Current Liabilities</b>	<b>-</b>	<b>33,827</b>	<b>39,052</b>	<b>44,671</b>	<b>51,033</b>	<b>58,231</b>	<b>66,371</b>	<b>75,541</b>	<b>84,974</b>	<b>93,662</b>	<b>98,806</b>
<i>Other liabilities</i>											
Lease payable	-	-	-	-	-	-	-	-	-	-	-
Deferred tax	-	-	-	-	-	-	-	-	-	-	-
Long term debt	2,818,461	2,055,875	1,650,097	1,179,394	633,378	-	-	-	-	-	-
<b>Total Long Term Liabilities</b>	<b>2,818,461</b>	<b>2,055,875</b>	<b>1,650,097</b>	<b>1,179,394</b>	<b>633,378</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<i>Shareholders' equity</i>											
Paid-up capital	2,818,461	2,818,461	2,818,461	2,818,461	2,818,461	2,818,461	2,818,461	2,818,461	2,818,461	2,818,461	2,818,461
Retained earnings	-	(113,583)	120,529	699,790	1,680,006	3,124,932	5,147,915	7,673,825	10,688,538	14,061,620	17,828,327
<b>Total Equity</b>	<b>2,818,461</b>	<b>2,704,878</b>	<b>2,938,990</b>	<b>3,518,251</b>	<b>4,498,467</b>	<b>5,943,393</b>	<b>7,966,376</b>	<b>10,492,286</b>	<b>13,506,999</b>	<b>16,880,081</b>	<b>20,646,788</b>
<b>TOTAL CAPITAL AND LIABILITY</b>	<b>5,636,922</b>	<b>4,794,580</b>	<b>4,628,139</b>	<b>4,742,316</b>	<b>5,182,878</b>	<b>6,001,625</b>	<b>8,032,747</b>	<b>10,567,827</b>	<b>13,591,973</b>	<b>16,973,743</b>	<b>20,745,594</b>
<i>Note: Total assets value will differ from project cost due to first installment of leases paid at the start of year 0</i>											

## 12.3 Cash Flow Statement

Statement Summaries											SMEDA
Cash Flow Statement											
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Rs. in actuals Year 10
<i>Operating activities</i>											
Net profit	-	(113,583)	234,112	579,261	980,216	1,444,926	2,022,983	2,525,910	3,014,713	3,373,082	3,766,707
Add: depreciation expense	-	430,850	430,850	430,850	430,850	430,850	430,850	430,850	430,850	430,850	430,850
amortization expense	-	45,574	45,574	45,574	45,574	45,574	5,000	5,000	5,000	5,000	5,000
Deferred income tax	-	-	-	-	-	-	-	-	-	-	-
Accounts receivable	-	(14,780)	(1,132)	(2,345)	(2,583)	(2,917)	(3,292)	(3,713)	(3,993)	(3,868)	(3,866)
Finished good inventory	-	(18,490)	(2,474)	(2,784)	(3,131)	(3,520)	(3,955)	(4,442)	(4,611)	(4,318)	(4,747)
Equipment inventory	(103)	(16)	(17)	(19)	(22)	(25)	(28)	(29)	(27)	(29)	316
Raw material inventory	(42,697)	(9,005)	(10,311)	(12,266)	(14,578)	(17,313)	(20,545)	(22,802)	(23,206)	(26,772)	199,496
Pre-paid building rent	(48,000)	(4,800)	(5,280)	(5,808)	(6,389)	(7,028)	(7,730)	(8,503)	(9,354)	(10,289)	113,181
Pre-paid lease interest	-	-	-	-	-	-	-	-	-	-	-
Advance insurance premium	(6,857)	686	686	686	686	686	686	686	686	686	686
Accounts payable	-	33,827	5,225	5,619	6,362	7,198	8,140	9,170	9,432	8,688	5,144
Other liabilities	-	-	-	-	-	-	-	-	-	-	-
Cash provided by operations	(97,657)	350,262	697,231	1,038,767	1,436,984	1,898,431	2,432,107	2,932,125	3,419,491	3,773,030	4,512,766
<i>Financing activities</i>											
Change in long term debt	2,818,461	(762,586)	(405,778)	(470,703)	(546,016)	(633,378)	-	-	-	-	-
Change in short term debt	-	-	-	-	-	-	-	-	-	-	-
Change in export re-finance facility	-	-	-	-	-	-	-	-	-	-	-
Add: land lease expense	-	-	-	-	-	-	-	-	-	-	-
Land lease payment	-	-	-	-	-	-	-	-	-	-	-
Change in lease financing	-	-	-	-	-	-	-	-	-	-	-
Issuance of shares	2,818,461	-	-	-	-	-	-	-	-	-	-
Purchase of (treasury) shares	-	-	-	-	-	-	-	-	-	-	-
Cash provided by / (used for) financ	5,636,922	(762,586)	(405,778)	(470,703)	(546,016)	(633,378)	-	-	-	-	-
<i>Investing activities</i>											
Capital expenditure	(4,811,368)	-	-	-	-	-	-	-	-	-	-
Acquisitions	-	-	-	-	-	-	-	-	-	-	-
Cash (used for) / provided by invest	(4,811,368)	-	-	-	-	-	-	-	-	-	-
<b>NET CASH</b>	<b>727,897</b>	<b>(412,324)</b>	<b>291,453</b>	<b>568,064</b>	<b>890,968</b>	<b>1,265,053</b>	<b>2,432,107</b>	<b>2,932,125</b>	<b>3,419,491</b>	<b>3,773,030</b>	<b>4,512,766</b>
Cash balance brought forward		727,897	315,573	607,026	1,175,090	2,066,058	3,331,111	5,763,218	8,695,344	12,114,835	15,887,864
Cash available for appropriation	727,897	315,573	607,026	1,175,090	2,066,058	3,331,111	5,763,218	8,695,344	12,114,835	15,887,864	20,400,631
Dividend	-	-	-	-	-	-	-	-	-	-	-
Cash carried forward	727,897	315,573	607,026	1,175,090	2,066,058	3,331,111	5,763,218	8,695,344	12,114,835	15,887,864	20,400,631

## 13 KEY ASSUMPTIONS

### 13.1 Operating Cost Assumptions

Description	Details
Operational Day	330
Operational Hours	12
Shift/Day	1

### 13.2 Production Cost Assumptions

Description	Details
Testing capacity utilization	75%
Testing Capacity growth rate	3%
Maximum capacity utilization	95%

### 13.3 Revenue Assumptions

Description	Details
Revenue Y1	5,394,627
Testing Capacity Year 1 (100%)	11,040

### 13.4 Financial Assumptions

Description	Details
Interest Rate	16%
Debt: Equity Ratio	50:50

# Small and Medium Enterprises Development Authority

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