FILE No.															
Creator : Ms Ritika (TA)				Moderator : Shri A.V.Muralidharan (Dy. CEO GeM)							Approver : A.K Kamra				
	Lab Centrifuge														
	: UNSPSC Code														
S.No.	Parameters			Value 1	Value2	Value 3	Value 4	Value 5	Value 6	Validation	Golden parameter	Remarks	priority	Unit	Demand Aggregation
Standards															
1	Confirmity to standards	S	E	**European CE (Notified Body)With 4 Digit Notified Body No**	**BIS**						G				
2	Confirmity to Quality Management Sytems for Medical Devices	S	E	ISO 13485							G				
3	Certifications Manufacturer			ISO 9001:2015											
General Parameters															
1	Purpose	P	E	To Centrifuge different kinds of samples in different kinds of Testing Labs and research Labs at room Temperature											
2	Centrifuge design	P	E	Bench Top	Floor Model										
3	Assembly Material for manufacture of General Purpose Lab Centrifuge	M	E	Die cast Aluminum, Aluminum sheet, Stainless Steel, CRC Stell,Plastic and Rubber							G				
4	Lid Material of General Purpose Lab Centrifuge	M	E	CRC Steel finish with powder coating or stove painting or ABS Plastic of injection moulding											
5	Body material of General Purpose Lab Centrifuge	M	E	C.R.C Steel Finish with Powder Coating/ Stove Painting.											
6	Front Panel of General Purpose Lab centrifuge	M	E	CRC Steel finish with powder coating or stove painting or ABS Plastic of injection moulding											

7	Centrifuge Bowl material in General Purpose Cebntrifuge	M	E	304 Quality Stainless Steel Moulded											
8	Material of Rotor	M	E	Aluminium,											
9	Weight including Rotor	D	N							<150					
10	Auto cut off	A	E	Yes											
11	Timer provided	A	E	Yes											
12	Maximum RPM with no load	P	E	20000											
13	Speed controller availble for Varying RPM and RCF corresspondingly	P	E	YES											
14	Number of steps of RPM Variation available in the settings (corresspondingly RCF also varies)	P	N							≥10					
15	RPM setting accuracy	P	E	plus minus 5%											
16	Type of Motor	P	E	Brushless(without carbons)	**With Carbon Brushess**						G				
17	Accessories	A	E	Spanner to tight or loose Nut of Rotor on Motor shaft head puller,spare rotor nuts ,fuse-2, Instruction Manual Book ,installation CD											
18	Type of lid lock	P	E	Both Manual and Electronic							G				
19	Maximum Noise level when working at 1 metere distance in db	P	N							<80					

20	Ambient operating Temperature range in Degree centigrade celcius AND HUMIDITY RANGE	P	E	0 to 50 and Relative humidity 15 to 90%											
21	Rotor imbalance diagnostics and automatic stop if required	A	E	Yes											
22	No of accelaration and decelarion profiles in built for rotor speed while automatic braking	A	E	Programmable from 50 to 200 Seconds in Interval of 5 Seconds							G				
23	Maximum timer set point	P	E	60 MINUTES											
24	Parameters to be displayed by the digital display			RPM,RCF,Set time,Run time,Rotor running indication ,imbalancing if any											
25	DISPLAY Type	P	E	LCD							G				
26	Speed controller	P	E	Microprocessor controlled pre programme speed controller which can control RPM as well as RCF											
27	Speed Control tolerance in case of set speed (Plus minus RPM) in percentage	P	N							≤ 5					
28	Configuration of Rotor supplied with centrifuge machine	P	E	Swing Out	Angle rotor	swing out and angle rotor					G				
29	Rotor Feature WITH REFERENCE TO Autoclavability	P	E	Autoclavable Rotor @121 Degree Celsus											
30	Type of Tubes which can be used with centrifuge machine (Hint Max Resistance of Plastic Tubes is upto 20000 RPM depending upon volume of Tube and Max Resistance of Glass Tubes is upto 4000 RPM.)			Polypropylene Centrifuge tubes and Glass centrifuge tubes											
31	Size of rotor supplied with centrifuge			4x100 ml(for angle rotor) **RPM 13000**	6x50 mLfor angle rotor) **RPM 13000**	8x25 mlfor angle rotor) **RPM 13000**	12x15mlfor angle rotor) **RPM 13000**	4 Micro Strips for angle rotor) **RPM 13000**		Multi select					
				12x2mlfor angle rotor) **RPM 20000**	24x1.5MLfor angle rotor) **RPM 16000**	8x5mLfor angle rotor) **RPM 16000**	24X2 MLfor angle rotor) **RPM 16000**	8X15MLfor angle rotor) **RPM 13000**			G				

				24 x 0.5ML for angle rotor) **RPM 20000**	16X15MLfor angle rotor) **RPM 6000**	24x15mlfor angle rotor) **RPM 6000**	16x15ml((For swing out type rotor RPM 5000)	24x15ml(FOR swing out type rotor RPM 5000)							
				32x15ml(FOR swing out type rotor RPM 5000)	4x50ml(FOR swing out type rotor RPM 5000)	2 Micro Plates of 96 wells Each(FOR swing out type RPM 3000)									

32	Maximum RCF	P	N								G				
33	Power supply	P		220 Volts 50 Hz AC ± 10%											
34	Power consumption in watts	P	N												
35	Length of the General purpose Centrifuge in mm	D	N												
36	Width of the General purpose Centrifuge in mm	D	N												
37	Height of of the General purpose Centrifuge in mm	D	N												
38	Length of Power cord in meters	D	N							≥ 3					
39	The Equipment shall be installed and demonstrated before Acceptance	P	E	Yes	No(No installation and demonstration required and consignee can install)						G				
40	Servo Controller Voltage Stabilizer supplied with Item	A	E	Yes	No						G				
41	Servo stabilizer ratings in KVA	A	E	1	**2**	Not supplied					G				
42	Warrantly period in years	P	E	1	2	3	4	5			G				