

PO. no. : EdCIL/EIS & EPS/PROC/2024/ 2294

21.10.2024

M/s STEM Learning Pvt Ltd,
1205, Marathon Icon,
Marathon Nextgen Campus,
Opp. G.K. Marg, Lower Parel (W)
Mumbai.

Subject: Setting up of 10 Nos of STEM (Science, Technology, Engineering and Mathematics) labs in Government High schools and Higher Secondary schools under CSR of Kudankulam Nuclear Power Project.

Ref: 1. NIT No: EdCIL/EIS & EPS/PROC/2022-23/04, Dated: 11.01.2023
2. MoU (Rate Contract agreement) signed between EdCIL & M/s. STEM Learning Pvt Ltd. on 17.04.2023 for setting-up of Integrated Science, Maths & Technology Lab.

Dear Sir/Madam,

1. Your above-mentioned Rate Contract agreement was signed on 17.04.2023 between EdCIL & M/s. STEM Learning Pvt. Ltd. for Setting-up of STEM Lab.
2. **Project - "Setting-up of 10 Nos. of STEM labs (class V to X) in Government High schools and Higher Secondary schools under CSR of Kudankulam Nuclear Power Project"** at a total amount of Rs. 86,29,950/- (Rupees Eighty Six Lakh Twenty Nine Thousand Nine Hundred Fifty Only) Inclusive of taxes.
3. The Scope of **"Setting up of 10 Nos. of STEM labs under CSR of Kudankulam Nuclear Power Project (for classes V to X)"** with warranty shall be governed as mentioned in the NIT No: EdCIL/EIS & EPS/PROC/2022-23/04 Dated: 11.01.2023.
4. The STEM Lab items /equipment has to be Supplied and Installed in the schools identified by NPCIL Kudankulam, list is given below :
 - i) Govt. Higher Secondary School – Chettikulam
 - ii) Govt. Higher Secondary School – Kudankulam
 - iii) Govt. Higher Secondary School – Palavoor
 - iv) Govt. High School – Madanpillaitharman
 - v) Govt. High School – T. Karunkulam
 - vi) Govt. High School - Kavalkinaru
 - vii) Govt. High School - Mathaganeri
 - viii) Govt. High School - Koliyankulam
 - ix) Govt. High School - Seelathikulam
 - x) Govt. High School - Aathukuruchi



5. This letter shall form a part of the Contract Agreement/Rate Contract signed on 17.04.23 between **EdCIL (India) Limited & M/s STEM Learning Pvt. Ltd., Mumbai** along with the tender document and all Corrigendum/Addendum, correspondence made for this tender.
6. As Per Clause No. 10 of Chapter-V 'Instruction to Bidders' (Delivery Schedule), the Supply, installation and commissioning should be completed within 30 days from the issuance of the Purchase Order.
7. **Service Period:** The duration of the service period shall be shall be 01 year 03 months from the date of issuance of PO.
8. **Payment Terms:**
- i) 80% payment (of total PO value) shall be released after completion of Delivery & Installation of equipment, Baseline Survey and 1st Teacher Training.
 - ii) 20% payment (of total PO value) shall be released after completion of the project.

Note:

- a) The ownership of supplied items shall be with EdCIL/ EdCIL's Client and as such EdCIL will process the Invoice of the Supplier only after the receipt of payment from EdCIL's Client for the respective stages.
- b) Valid GST invoice should be prepared and Billed to EDCIL India Limited quoting EDCIL's GST NO and **Place of Delivery is:**

**Kudankulam Nuclear Power Project
Kudankulam (PO), Radhapuram (Taluk)
Tirunelveli – 627106**

8) **Warranty**

- 8.1 Comprehensive Warranty should be for a minimum period of **One (01) years** from date of successful delivery, installation, commissioning & handing over of STEM Lab at the designated location/schools as per the Tender Document Clause No. 26 of Chapter-V (Instruction to Bidders) and amendment if any.
- 8.2 The warranty should be comprehensive on site with responsibility of the agency to ensure attending the warranty queries/issues received from NTPC/schools time to time within the Warrantee Period. Supplier should give written information (about the Engineers/ technical representative name and cell numbers) before handing over of the STEM Lab to the Consignee and to the end client's nominated representative/s to attend the issues related to the warranty of the goods supplied under the contract.



8.3 The period for correction of defects in the warranty period is 02 days. If the supplier having been notified fails to remedy the defects within 02 days, the consignee should proceed to take such remedial action as should be necessary, at the supplier's risk and expenses and without prejudice to any other rights, which the consignee should have against the supplier under the contract.

- 9) **Performance Security:** The successful bidder should be required to deposit Performance Bank Guarantee equivalent to **03% of contract value/work order** to EdCIL **within 15 (Fifteen) days** from the date of receipt of Purchase Order. The Performance Bank Guarantee should be issued by a **Nationalised Bank/Scheduled Bank** in favour of "**EdCIL (India) Limited. Noida**". This Performance Bank Guarantee should be retained throughout the currency of the contract and should be extended by the bidder from time to time, as required by EdCIL. This guarantee shall be valid for a period of **90 days beyond the One-year warranty period from the date of commissioning and successful handing over.** (Refer Clause No. 8 of Chapter-V, Instructions to Bidders of Tender Document and Annexure IX Format of PBG Enclosed).
- 10) **Delayed Delivery:** If the delivery is not made within the due date for any reason under the control of the successful bidder, the EdCIL reserves the right to impose Liquidated damages (LD) @ 0.5% plus GST per week effective from 31st day from the date of issuance of PO and the maximum deduction of 10% of the contract value/rate. The LD shall be applied only on the portion of items not delivered within the stipulated time period for reasons under the control of the supplier. Applicable GST on LD amount would also be charged additional. Once the maximum is reached, EdCIL has the right to terminate the contract without any liability to cancellation charges and encash the submitted performance guarantee/s submitted by successful bidder. (Refer Clause No. 16 of Chapter-V, Instructions to Bidders of Tender Document).
- 11) **The Baseline Survey Report shall contain :** 1. Title/Cover Page 2. Table of Contents 3. Executive Summary 4. List of acronyms and abbreviations 5. List of tables and figures 6. List of photos 7. Introduction 8. Survey Methodology-detailed 9. Findings 10. Conclusion 11. Annexures (List of Documents reviewed, survey tools/questionnaires, etc.)
- 12) **The End line Survey Report shall contain :** 1. Background 2. Purpose 3. Research Objectives 4. Methods, Study Location, Selection Criteria, Sampling Procedure, Sample Size, and Survey tools/instruments, Survey team, required consent form 5. Data Collection-data entry and analysis, timeline, ethical considerations, consent 6. Findings and Recommendations 7. References.
- 13) You are advised to contact immediately to the DGM (EIS & EPS), EdCIL House, 18-A, Sec-16A, Noida (U.P.)- 201301 for further directions and submission of schedule, Contract Agreement, & Performance Bank Guarantee and Duplicate Signed copy of this Purchase Order.



14) This letter is sent with a duplicate copy of this letter, you are advised to return duplicate copy duly signed & stamped from the authorized representative as a token of your acceptance for the said work order within 3 days time. An advance copy is sent on official email id as mentioned in bid submitted i.e. meera.dhanuka@stemlearning.in.

15) Kindly acknowledge the receipt of Purchase Order.

Thanking You,

Yours Faithfully



(Nandeesh Babu MG)
DGM (EIS & EPS)

Enclosure:

1. BOQ on Accepted Rates (Annexure-I)
2. Copy of Signed Contract Agreement (Annexure-II) (email)
3. Performance Bank Guarantee Format(Annexure-III)(email)
4. List of Banks enclosed for BG (Annexure-IV)



(Annexure-I)

Name of Work		Setting up of STEM Labs in Schools		
Sl.	Description	Unit cost(Rs.)	Taxes @ 18%	Total inclusive Cost of taxes
1	Setup of 80 Nos. plug & play physical models along with user's manual, colorful backgrounds, Safety Placard, Teachers' Manual; One-year Comprehensive Warrantee is included in this cost.	5,95,170	1,07,131	7,02,301
2	Teachers Training Program- 02 times in a year (4-5 hour duration for each session);	35,000	6,300	41,300
3	Infrastructural Setup (with 2 ft width MDF Board) along with the Electrical connection with in the lab & Installation of the models;	66,182	11,913	78,095
4	Baseline & End line survey per school including all tour & travel, boarding, lodging etc. for complete project;	35,000	6,300	41,300
	Sub-Total (for 80 Models' Lab- Class 5 to 10)	7,31,352	1,31,643	8,62,995
	Total Cost for 10 nos. STEM Lab (class 5-10)			₹ 86,29,950



Price

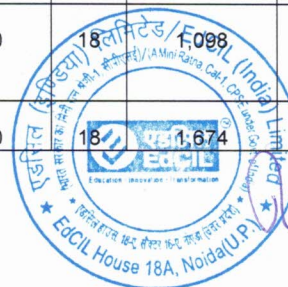
Sr. No.	Model Name/ Principle	Specification	Qty.	Unit	Rate/unit (in Rs.)	Amount (Exclusive of Tax) (Rs.)	Tax es. (%)	Taxes in (Rs.)	Amount (Inclusive of Tax) (Rs.)
A	80 nos Models (Class 5-10) Integrated Science, Maths Lab								
1	Constellation Viewer	Identification and study of Indian constellations About Constellations Stars Pattern	1	No.	8,100	8,100	18	1,458	9,558
2	Newton's Disc	White light is made up of 7 colours (VIBGYOR). Splitting of white light.	1	No.	4,800	4,800	18	864	5,664
3	Colour Shadow	Combinations of colour lights. Additive mixture of colour. Primary colours.	1	No.	8,430	8,430	18	1,517	9,947
4	Periscope	Application of laws of reflection. Angle of incidence and angle of reflection	1	No.	8,910	8,910	18	1,604	10,514
5	Kaleidoscope	Multiple reflection. Symmetric images. Patterns due to reflection	1	No.	4,780	4,780	18	860	5,640
6	Laws of Reflection	Laws of reflection for plane mirror. Angle of incidence = angle of reflection.	1	No.	4,780	4,780	18	860	5,640
7	Corner Mirror	Multiple reflection. Image formula ($N=360/A - 1$) Angled mirrors.	1	No.	7,730	7,730	18	1,391	9,121
8	Infinity Well	Multiple reflections. Image formation in parallel mirrors.	1	No.	8,320	8,320	18	1,498	9,818
9	Magic Water Tap	Optical Illusion. Refractive index of medium, refraction	1	No.	8,680	8,680	18	1,562	10,242
10	Total Internal Reflection.	Total internal reflection, bending of light ray. Optical fibre	1	No.	8,320	8,320	18	1,498	9,818
11	Fun with Magnets	Types of magnets Magnetic field and properties of field lines.	1	No.	4,780	4,780	18	860	5,640
12	Law of Inertia	Newton's first law. Inertia is opposing change in state of rest.	1	No.	8,910	8,910	18	1,604	10,514
13	Circle and Ball	Newton's first law. Inertia is opposing change in motion. Centripetal force.	1	No.	8,900	8,900	18	1,602	10,502
14	Action and Reaction	Newton's 3rd law of motion. For every action there is equal opposite and reaction	1	No.	7,730	7,730	18	1,391	9,121
15	Parrot in the Cage	Persistence of vision. Frames per second. The basic concept of animation.	1	No.	6,550	6,550	18	1,179	7,729
16	Zoetrope	Persistence of vision. Frames per second. The basic concept of motion picture.	1	No.	8,320	8,320	18	1,498	9,818
17	Pin screen	Pressure Inverse relation of Pressure	1	No.	8,800	8,800	18	1,584	10,384



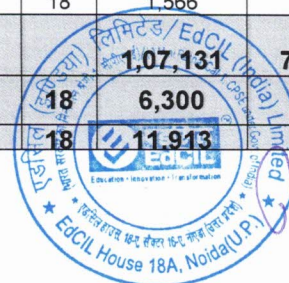
		Area Representation of pixels							
18	Floating Ball	Bernoulli's principle. Pressure difference and lift.	1	No.	7,730	7,730	18	1,391	9,121
19	Floating Fan	Bernoulli's principle. Air pressure difference	1	No.	8,670	8,670	18	1,561	10,231
20	Tornado	Atmospheric disturbances, currents, storms. Vortex of wind.	1	No.	7,230	7,230	18	1,301	8,531
21	Hand Pump	Application of pressure to pump water. Pressure-volume relation.	1	No.	8,200	8,200	18	1,476	9,676
22	Anamorph	Perspective, Viewpoints Illusion and Graphical projection	1	No.	7,800	7,800	18	1,404	9,204
23	Floating Magnets	Properties of magnet. Attraction in opposite poles and repulsion in like poles	1	No.	7,600	7,600	18	1,368	8,968
24	Magnetic Field Tube & Immiscible Fluid	Magnetic field and properties of magnets. Density of liquid	1	No.	7,300	7,300	18	1,314	8,614
25	Moment of inertia	Moment of inertia Rotational inertia. Distribution of mass.	1	No.	8,410	8,410	18	1,514	9,924
26	Lazy Tube	Magnetic Field and Forces, Eddy current, Lenz Law.	1	No.	6,050	6,050	18	1,089	7,139
27	Hyperbola	Conic sections. Shape of hyperbola.	1	No.	7,230	7,230	18	1,301	8,531
28	Magnetic effect of electric current	Magnetism Magnetic effects of electric current. Compass deflection. Oesterd's experiment	1	No.	7,820	7,820	18	1,408	9,228
29	Pythagoras Model & Moire Pattern	Pythagoras theorem and Interference of Light	1	No.	7,820	7,820	18	1,408	9,228
30	Elliptical Carrom Board	Conic sections. Properties of ellipse.	1	No.	6,050	6,050	18	1,089	7,139
31	Two Congruent Right Triangles	Comparison of area of different geometric shapes. Congruent shapes.	1	No.	4,280	4,280	18	770	5,050
32	Area of a Circle	Simple illustration of derivation of area of circle	1	No.	6,050	6,050	18	1,089	7,139
33	$(a+b)^2 = a^2 + 2ab + b^2$	Geometric illustration of basic algebraic identity.	1	No.	6,050	6,050	18	1,089	7,139
34	$(a+b+c)^2 = a^2 + b^2 + c^2 + 2ab + 2bc + 2ca$	Geometric illustration of basic algebraic identity.	1	No.	6,050	6,050	18	1,089	7,139
35	$a^2 - b^2 = (a+b)(a-b)$	Geometric illustration of basic algebraic identity.	1	No.	7,820	7,820	18	1,408	9,228
36	Sum of the angles of a triangle	Elementary theorem of math. "Sum of all three angles of any triangle = 180 ° Linear pair.	1	No.	6,050	6,050	18	1,089	7,139
37	Tangram	Interesting tiling puzzle. Basic geometric shapes.	1	No.	4,190	4,190	18	754	4,944
38	Parking Puzzle	Mathematical logic Algorithm Brain Teaser	1	No.	8,600	8,600	18	1,548	10,148
39	Organ pipes	Sound of different frequencies and wavelengths. Musical notes.	1	No.	6,050	6,050	18	1,089	7,139



40	Area of rhombus	Simple illustration of derivation of area of rhombus	1	No.	9,700	9,700	18	1,746	11,446
41	Transverse wave pendulum	Mechanical wave. Basic concepts of transverse wave. Actual Representation of vibrating particles and propagating wave	1	No.	7,820	7,820	18	1,408	9,228
42	Area of triangle	Simple illustration of derivation of Area of Triangle	1	No.	6,050	6,050	18	1,089	7,139
43	Area of parallelogram	Simple illustration of derivation of area of parallelogram	1	No.	7,800	7,800	18	1,404	9,204
44	Coupled Pendulum	Resonant frequency. The resonant frequency depends on the pendulum's length. Longer pendulums have lower frequencies.	1	No.	8,100	8,100	18	1,458	9,558
45	Solar Light	Conversion of solar energy into electricity. Application of renewable energy sources. Solar panel, semiconductors.	1	No.	9,800	9,800	18	1,764	11,564
46	Wind Mill	Working of wind mill. Conversion of wind energy into electricity.	1	No.	7,900	7,900	18	1,422	9,322
47	Shape of earth due to rotation	Shape of earth Rotational force Centrifugal force	1	No.	8,300	8,300	18	1,494	9,794
48	KE PE Track	Conversion of energy. Potential and Kinetic energy.	1	No.	9,300	9,300	18	1,674	10,974
49	Loop The Loop	Conservation of energy. The minimum speed necessary to complete the loop without falling.	1	No.	4,190	4,190	18	754	4,944
50	Rope Puzzle	Logic and Mathematical shapes study of surfaces	1	No.	8,900	8,900	18	1,602	10,502
51	Refraction Cylinder	Refraction of light Alphabet symmetry	1	No.	8,300	8,300	18	1,494	9,794
52	Newton's Cradle	Conservation of energy, conservation of momentum and friction.	1	No.	9,300	9,300	18	1,674	10,974
53	Reflection Transmission	Application of laws of reflection. Reflection and Transmission of light.	1	No.	7,300	7,300	18	1,314	8,614
54	Hand Battery	Electric potential difference. Electric battery. Chemical effect of electric current	1	No.	8,000	8,000	18	1,440	9,440
55	Day and Night	Cycle of day and night on earth. Shadows. Seasons, angle of tilt.	1	No.	7,650	7,650	18	1,377	9,027
56	Cone Run Uphill	Centre of mass. Gravity pulls on the centre of mass of objects.	1	No.	9,600	9,600	18	1,728	11,328
57	Tower Of Pisa	Center of mass. Centre of gravity. Gravitation. Stability of structure.	1	No.	6,100	6,100	18	1,674	7,774
58	Lever	Simple Machines Lever. Type of lever.	1	No.	9,300	9,300	18	1,674	10,974



59	Pulley Block	Pulley- simple machine. Combination of pulley. Mechanical Advantage.	1	No.	8,100	8,100	18	1,458	9,558
60	Wheel and Axle	How it is easy to rotate wheel when force is applied at a point distant from center.	1	No.	7,600	7,600	18	1,368	8,968
61	Heat Absorption	Black Body, Heat Absorption and Reflection, Colour Temperature	1	No.	9,300	9,300	18	1,674	10,974
62	Conductors and Insulators	Electrical conductivity Types of conductor and insulator	1	No.	9,500	9,500	18	1,710	11,210
63	Viscosity Tube	Buoyancy. Viscosity. Density	1	No.	9,700	9,700	18	1,746	11,446
64	Rock and Minerals	Different types of rock and mineral samples. Difference between them.	1	No.	5,280	5,280	18	950	6,230
65	DNA	Double helix structure of DNA. A-Tand G-C pairs.	1	No.	8,300	8,300	18	1,494	9,794
66	Lateral Shift	Refraction of light, deviation in path.	1	No.	7,300	7,300	18	1,314	8,614
67	Force & types of friction	Friction, speed due to surface texture. Rolling Friction.	1	No.	4,280	4,280	18	770	5,050
68	Funny mirrors	Distorted mirror. Convex and concave mirrors	1	No.	4,380	4,380	18	788	5,168
69	Marble Slide	Conservation of momentum.	1	No.	6,050	6,050	18	1,089	7,139
70	Resonance	Frequency and length of object, resonating frequency.	1	No.	6,050	6,050	18	1,089	7,139
71	Centrifuge Puzzle	Centripetal and Centrifugal force.	1	No.	6,050	6,050	18	1,089	7,139
72	Area of Trapezium	Area of trapezium using parallelogram	1	No.	4,280	4,280	18	770	5,050
73	Sum of angles of Quadrilateral	Sum of angles of Quadrilateral Complete angle	1	No.	6,050	6,050	18	1,089	7,139
74	$(A+B)^2 - (A-B)^2 = 4AB$	Geometric illustration of basic algebraic identity.	1	No.	7,300	7,300	18	1,314	8,614
75	Electric bell	Electric Circuit, Electromagnet and magnetic effects of current	1	No.	6,050	6,050	18	1,089	7,139
76	Human Torso	Human Body Anatomy Organs Functions of Body parts	1	No.	6,100	6,100	18	1,098	7,198
77	Ear & Eye	Sense organs Functions of body parts Vision Hearing	1	No.	9,650	9,650	18	1,737	11,387
78	Human Joints	Types of joint In human body Bones and ligaments	1	No.	10,100	10,100	18	1,818	11,918
79	Plant Cell	Eukaryotic cells Difference between cells Parts of cell	1	No.	11,750	11,750	18	2,115	13,865
80	Animal Cell	Difference between cells, Parts of cell	1	No.	8,700	8,700	18	1,566	10,266
Sub Total						5,95,170	18	1,07,131	7,02,301
111	TRAINING OF TEACHERS	Total - 2 visits	2	No.	17,500	35,000	18	6,300	41,300
112	INFRASTRUCT	MDF Board (2 ft	1	No.	91,000	66,182	18	11,913	78,095



	URE	width) 45 pcs Iron Brackets 5 pcs Electric Casing Switch and Socket 20pcs each 10 pcs socket box Wodden Bit 14 pcs of 7.5 ft Steel wall nails (2kg) Red & Black Wire 40 mtr Each 1 MCB 100 pcs Screw (1inch)		for 110					
114	Base line & Endline Survey		1	No.	35,000	35,000	18	6,300	41,300
	Total of Integrated Science, Maths Lab (A)					7,31,352		2,38,774	8,62,995

<u>S.no.</u>	<u>Total Cost of vendor</u>	<u>Qty.</u>	<u>Remarks</u>
1	8,62,995	1 no lab	Including GST
2	86,29,950	10 nos. labs	Including GST



Name of the Bank: _____

To
EdCIL (India) Limited, NOIDA

PERFORMANCE BANK GUARANTEE FORMAT

In consideration of the Chief General Manager, EdCIL acting through CMD, EdCIL (Designation & address of Contract Signing Authority), (herein after called "**EdCIL (India) Limited**") having agreed under the terms and conditions of agreement / Contract Acceptance letter No. _____ dt _____ Made between _____ (Designation & address of contract signing Authority) and _____ (here in after called "the said Agency" for the work _____ (here in after called "the said agreement") having agreed for submission of a irrevocable Bank Guarantee Bond for _____ (_____ only) as a performance security Guarantee from the Agency for compliance of his obligations in accordance with the terms & conditions in the said agreement.

1. We _____ ₹ _____ (Indicate the name of the Bank) herein after referred to as the Bank, undertake to pay to the EdCIL (India) Limited an amount not exceeding ₹ _____ (_____ only) on demand by EdCIL
2. We _____ (Indicate the name of the bank, further agree that (and promise) to pay the amounts due and payable under this guarantee without any demur merely on a demand from the EdCIL through the CGM, EdCIL or _____ (Designation & Address of contract signing authority), stating that the amount claimed is due by way of loss or damage caused to or would because do suffered by EdCIL by reason of any breach by the said Agency of any of the terms of conditions contained in the said agreement or by reason of the Agency failure to perform the said agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding _____ only).
3. (A) We _____ (indicate the name of Bank) further undertake to pay to the EdCIL any money so demanded not with standing any dispute or dispute raised by the Agency in any suite or proceeding pending before any court or Tribunal relating to liability under this present being absolute and unequivocal.
 - a. The payments made by us under this Performance Guarantee shall be a valid discharge of our liability for payment there under and the Agency shall have no claim against us for making such payment.
4. We _____ (Indicate the name of bank) to further agree that the



(Designation & Address of contract signing authority) on behalf of the EdCIL certify that the terms and conditions of the said agreement have been fully and properly carried out by the said Agency and accordingly discharges this guarantee.

- Completion plus Handholding
Not withstanding anything

to the contrary contained herein before, our liability under this guarantee is restricted to Rs.....(Rs.....only) unless a demand under this

10. Guarantee is made on us in writing on or before..... we shall be discharged from our liabilities under this guarantee thereafter.

Dated: the Day of For

(indicate the name of bank) Signature of Banks

Authorized official

Witness (Name)_____

Designation with Code No. -----

Full Address-----



LIST OF AUTHORISED BANKS FOR BG

Any Guarantee issued by PSU Bank (or) Private Bank operating in India must be operational and invocable in Noida only. For Guarantee to be operational in Noida the issuing bank must designate a specified Bank Branch in Noida.

Following banks are permissible for accepting Bank Guarantees:

I- SCHEDULED PUBLIC SECTOR BANKS

Sr.No	Name of the Bank
1	Bank of Baroda
2	Bank of India
3	Bank of Maharashtra
4	Canara Bank
5	Central Bank of India
6	Indian Bank
7	Indian Overseas Bank
8	Punjab & Sind Bank
9	Punjab National Bank
10	State Bank of India
11	UCO Bank
12	Union Bank of India

II- SCHEDULED PRIVATE SECTOR BANKS

Sr.No	Name of the Bank
1	HDFC Bank Ltd
2	ICICI Bank Ltd
3	Axis Bank Ltd
4	Kotak Mahindra Bank Ltd
5	IndusInd Bank Ltd

