

Government of West Bengal
DEPARTMENT OF SCHOOL EDUCATION
STATE COUNCIL OF EDUCATIONAL RESEARCH & TRAINING
25/3, Ballygunge Circular Road, Kolkata-700019
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Memo No: 1132 F.No.488/SCERT/2020

Dated, Kolkata 20-02-2020

Tender Notice

Sub: Quotation for supplying kits (HS stage) for Mathematics Laboratory in SCERT (WB)

Sealed quotations are invited for supplying item wise of the following kits.

| Description of the Item | Quantity |
|-----------------------------------------------------------------------------------------------|------------------------|
| Equipment/ Materials (The list of item with specification is annexed herewith as Annexure-I) | As per Annexure - 1 |

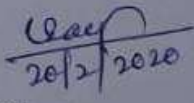
The aforesaid kits needs to be in good quality. The aforesaid equipment/ materials shall be supplied at SCERT (WB), 25/3 B.C Road, Kolkata-19.

The sealed quotation should be addressed to the Director, SCERT (WB).

Quotation need to be submitted only by either registered company or the supplier or the agency who can supply the above items by 15th March 2020.

No quotation will be accepted after 7th March 2020.

Encl: Annexure- 1


20/2/2020
Director,
SCERT (WB)

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| 6 | Principal of mathematical Induction | Plastic sheet size 200mm X60mm X 12mm with 5 multi coloured circles of diameter 65, 60, 55, 50 & 45 mm . All circles with centre hole and thickness 2mm. Also 3 plastic dowels made of polyner | One set |
| 7. | Complex number | Plastic sheet size 205mm X 230mm X3.2/3.5 mm graph printed on white plastic with 2 different colour arrow having 2mm diameter and length 80 mm L shape steel wire bended made | One |
| 8. | Permutation and Combination | Plastic sheet size 205mm X 230mm X3.2/3.5 mm rectangular pieces with multi colour printing and 2 jigsaw cutting inside for fixing 2 strips of 1.8 mm each made of plastic. | One |
| 9. | AP and GP | <ol style="list-style-type: none"> 1) Plastic sheet , 1 red square pieces of size 60mm X60mm X2mm and 4 rectangle pieces of size 90mm X 30mm X2mm each in yellow , orange, blue and green colour made of transparent plastic (for AM and GM). 2) Size 200mm X 225mm X 6mm white pieces with 100 inbuilt equidistant in ten holder height of 2mm to hold square pieces . 110 pieces of size 20mm X20mm X 2mm with colour (white -2, Red-10, Green-30 and Blue-68) with centre hole. Also 1 small name strip size 160mm X200mm X5mm with printing on both side which can be fitted on big white pieces made of plastic (for sum of first n natural numbers and sum of cube of first n natural numbers). 3) ABS plastic cube with sides 20mm accurate size 5mm to 8mm diameter holes . With depth of 5mm on five faces. Sixth face will have a leg to push fit into the holes (unfix cubes)(for sum of squares of first and natural numbers) | <p>One set</p> <p>One set</p> <p>180 cubes in 6 different colours (30 cubes of each)</p> |
| 10. | Conic section | Size 235mm X 235mm X16 mm board. One side permanent graph printing in black colour on ceramic white steel sheet and other side covered with laminated sheet . All four sides covered with round aluminum chapter and four corners fitted by first quality ABS corner. 2 screws fixed on the top of the graph with long life thread tied for experiment. | One |
| 11. | 3D | <ol style="list-style-type: none"> 1.) Size 100 mm X 100 mm X 2.5 mm plastic sheet with jigsaw cots on each side along with small holes on the sheet of size 100 mm X 50 mm X 2.5 mm with jigsaw cutting and holes and 2 small rectangle sheets of size 100 mm X 50 mm X 2.5 mm with jigsaw cutting. 2.) Transparent sheet plastic cuboids with size 50 mm X 60 mm X 70 mm open from one side, along with 4 steel rod of appropriated size 104 mm should be equal. | One each |
| 12. | Limit and continuity | Size 200 mm X 200 mm X 4 mm 3 movable arrows working on particular path of graph made of plastic and two arrows extra provide as per sample .Packed in plastic box. | One |
| 13. | Mathematical Reasoning | Circuit board size 1.5 ft X 1.ft Complete with plastic base , battery holder , bulb holder with 3.2 V , switch , banana sockets with two bulb extra and 5 set banana plug wire (5 black wire and 5 red wire) | Two set |
| 14. | Roll's Theorem | PVC foam board size 205 mm X 205 mm X 2.5 mm graph printed | One |
| 15. | LMV Theorem | PVC foam board size 205 mm X 205 mm X 2.5 mm graph printed | One 16 |

| Sl. No | Name of Item | Specifications | Quantity |
|--------|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| 1. | Sets | <p>i) Size 125mmX125mm(thickness 3.5/4mm) base sheet in green colour & 40 mm diameter round in red colour with 2 mm thickness in the centre fixed in a round jigsaw cut & marking made of plastic/fiber.</p> <p>ii) Size 125 mm X 125mm(thickness 5 mm base sheet in green colour disk with 5.4 mm outer diameter thickness & red ring thickness 5.4 outer diameter 80 mm with whole in centre containing yellow desk 40 mm diameter and thickness is 3,6 mm jigsaw cut & marking made of plastic/fiber.</p> <p>iii) Size 125mm x 125 mm X3.5/4 mm base sheet in green colour 2 circles (out of the 1 circle in yellow colour with 48 mm diameter and other circle in blue colour with 68 mm diameter . Both circles intersect each other which generates third shape in between with red colour marking made of plastic/ fiber.</p> <p>iv) Size 125mm X125mm base sheet in green colour 3 circle (out of them 1st circle in blue colour with 68 mm diameter and 2nd circle in red colour with 58 mm diameter and 3rd circle in yellow colour with 48mm diameter) all three circles intersecting each other , generating shape with black colour in the center along with generating white colour between any two circles intersecting made of plastic/fiber.</p> | One set each(4 set). |
| 2. | Relation and functions | Size 230mm X205mm X3.5/4mm in white colour with 2 elliptical shapes pieces in yellow colour pasted on white sheet . 2 elliptical shapes 10 different pieces with round edges of size 55mm X 22mm X 1.8mm each with centre hole. And 5 elastic with 1 arrow and 2 lugs on both ends. Also 10 nos. aluminum dowel of 3 mm diameter with appropriate higher made of plastic. | one |
| 3. | Function and relation | 1.5 ft X 1 ft wooden board having 10 holes perpendicularly in two sides , 10 ,1.5volt bulb and 7, 1 volt bulbs fixed as per sample. Battery , screws . | one |
| 4. | Trigonometric functions | <ol style="list-style-type: none"> 1) PVC board size 200 mmX200mmX3mm graph of $\sin x$ printed . 2) PVC board size 200 mmX200mmX3mm graph of $\sin^{-1}x$ printed . 3) PVC board size 200 mmX200mmX3mm graph of $\cos x$ printed . 4) PVC board size 200 mmX200mmX3mm graph of $\cos^{-1}x$ printed . 5) PVC board size 200 mmX200mmX3mm graph of $\tan x$ printed . 6) PVC board size 200 mmX200mmX3mm graph of $\log x$ and e^x printed . | One each |
| 5 | Graphs | <ol style="list-style-type: none"> 1) PVC board size 200 mmX200mmX3mm graph of $[x]$ printed . 2) PVC board size 200 mmX200mmX3mm graph of $x - [x]$ printed . 3) PVC board size 200 mmX200mmX3mm graph of $[x]/x$ printed . | One each |

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| | Increasing and decreasing function , Maxima Minima | Size 225 mm X 200 mm X 3.5/4 mm sheet 2 movable arrows working on particular path of graph made of plastic as per sample. And packed in plastic box | One |
| 17. | Integral | Paper graph in three different colours blue, yellow and pink. | Three each |
| 18. | Projection of | Size 225 mm X 200 mm X plate with 2 mm / 4 mm diameter steel rod of length 190 mm and 180 mm working model made of plastic | One each |
| 19. | a.(bXc) | Parallelopiped, each rectangular side 100 mm length and breadth 55 mm thickness 5 mm made of plastic | One |
| 20. | Distance between two skew lines | 4 hollow cylinder of size 50 mm height with 24 mm internal diameter and thickness 4mm and 3 holes of 2 mm . 2 steel rods of 200 mm each made of plastic as per sample and 1 steel rods of 50 mm . | One set |
| 21. | Intersection of two planes | Plastic white sheet of size 200 mm X 200 mm 3.5/6 mm with a V shape- slot of 1.8 /2 mm depth with 2 square plates colour blue and yellow size 100 mm X 100 mm X 1.8/2 mm made of plastic | One each |
| 22. | Angle between two planes | Plastic sheet size 200 mm X 70/75 mm base height 15 mm, one sheet joined with hinge on top side size 100 mm X 75 mm X 5mm thickness . Fixed one half protector one side of base as per sample . And 2 steel rod fixed right angle one base and another plastic plate joined. And one half protector fixed one rod as per sample . Packed in plastic box | One |
| 23. | LPP | <ol style="list-style-type: none"> 1. Plastic sheet size 200mm X 200mm X 4 mm white sheet with graph. 2. Plastic transparent sheet in two sizes one is 200 mm X 190mm X 3 mm and second sheet size is 210 mm x 165 mm X 3mm. 3. Dowels 30 pieces and five different sizes elastic with arrow | One 3 pcs. each |
| 24. | Probability | <ol style="list-style-type: none"> 1. Size 70mm X 25mm X 3mm rectangular sheets having 8 pieces each of 10 transparent red and blue colour and 8 pieces in white opaque colour with printing made of plastic with tray. 2. Size 60 mm X 20 mm x 1.6/2.5 mm rectangular 6 pieces made of plastic as per sample with .85 mm round coins in three colours | One set |
| 25. | Almirah | Steel , Size 36"X18"72" | 2 pcs |