

### राष्ट्रीय मुक्त विधालयी शिक्षा संस्थान National Institute of Open Schooling

#### (An Autonomous Institution of the Ministry of Education)

A-24/25, Institutional Area, Sector-62, NOIDA – 201309 (U.P.)

TENDER FOR REPAIRING AND REPLACEMENT OF FAULTY & WORN OUT PARTS OF THE FIRE FIGHTING & FIRE ALARM SYSTEMS AND UNDERTAKING ITS COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT INSTALLED AT NIOS,A-24/25, SECTOR-62, NOIDA,U.P.

#### 1- Introduction:

The National Institute of Open Schooling (NIOS) is an Autonomous Institution under the Ministry of Education, Govt. of India. NIOS Headquarters is situated at A-24-25, Institutional Area, Sector-62, Noida – 201309 (U.P.). It provides education opportunities for Secondary and Sr. Secondary levels and also for Vocational Courses to persons who wish to study further and for a better tomorrow. The mission of the NIOS is to provide education to all with special concern for girls, woman and rural youths, working men and women, SC and ST learners, who because of one or the other reasons could not continue their education with the formal system. The NIOS operates through a network for Twenty three (23) Regional Centres and Two (2) Sub-Regional Centres and about six thousand Accredited Institutions (AIs) and Accredited Vocational Institutions (AVIs) commonly known as study centres in India, Nepal and Middle East Countres. It is the largest Open Schooling System in the world.

#### 2- Important Dates and Time for inviting Tender:-

Published Date	12/10/ 2021 at 11.55am
Bid Document Download/Sale Start Date	12/10/ 2021 at 11.55am
Clarification Start Date & Time	13/10/2021 at 10.00am
Clarification Closing Date & Time	25/10/ 2021 at 4.00pm
Bid Submission Start Date & Time	26/10/ 2021 at 10.00am
Bid Submission End Date & Time	26/10/2021 at 2.30 pm
Technical Bid Opening Date & Time	26/10/ 2021 at 3.00pm

Duration of Contract	The period of contract shall be initially fo a period of one year which will be extendable on year to year basis subject to satisfactory performance for the services provided by the Agency/Firm.	
Tentative date & time for opening of Financial Bid of eligible tenderers	Date will be intimated through email / speed post of telephone message.	
Validity of Bid from the date of opening of Technical Bid		

#### **General Instructions:**

Sealed Quotation are invited by the Secretary, NIOS for **REPAIRING AND REPLACEMENT OF FAULTY & WORN OUT PARTS OF THE FIRE FIGHTING & FIRE ALARM SYSTEMS AND UNDERTAKING ITS COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT INSTALLED AT NIOS,A-24/25, SECTOR-62, NOIDA,U.P.** The interested firms/agencies may download the tender document from the NIOS website i.e. <a href="www.nios.ac.in">www.nios.ac.in</a> as well as from CPP portal i.e. <a href="mailto:eprocure@gov.in">eprocure@gov.in</a> on the date & time given above.

The Sealed Tender superscribed as "\_REPAIRING AND REPLACEMENT OF FAULTY & WORN OUT PARTS OF THE FIRE FIGHTING & FIRE ALARM SYSTEMS AND UNDERTAKING ITS COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT INSTALLED AT NIOS,A-24/25, SECTOR-62, NOIDA,U.P" along with a Bank Draft of a lumpsum amount of Rs. 30,000/- (Rupees Thirty Thousands Only) drawn in favour of the Secretary, NIOS payable at NOIDA towards Earnest Money Deposit Should be addressed to the Secretary, NIOS, A-24/25, Sector-62, NOIDA — 201309 (U.P.) and submitted in the sealed tender box kept at the room 204, A-24/25, Sector-62, NOIDA on the date & time specified above. The tenders received shall be opened on the same day at ------- by the duly constituted Committee at the NIOS, HQ at A-24-25, Sector-62, NOIDA, (U.P.) in the presence of the interested parties. The tender without EMD shall be deemed as rejected automatically.

The firms must submit their bids in two separate envelopes. The first envelope should contain Technical Bids and the second envelope should contain Financial Bids. It must be noted that at first, only the technical bids will be opened. After the evaluation of the technical bids, the financial bids will be opened only in respect of the eligible Firms. The ineligible Firms shall be summarily rejected in the evaluation process and their financial tenders will remain unopened. Interested parties are requested to quote their competitive lowest rates for each item in the prescribed financial tender proforma appended at Annexure – II.

#### 3- Eligibility Criteria:

- a) The Firm should have minimum five (5) years experience in the field of Servicing and Maintenance of Firefighting & Fire alarm equipments The bidder must submit a self-attested copy (copies) of Recent work order (s) (details filled with attached format Annexure-V) of which the work (s) has (have) been completed within last five years to the one of issue of the company, as a proof of similar work done in a PSU, Central /State Government Organization or subsidiary / joint venture / Regulated company thereof, or a reputed private company etc. The work should be: i) One similar completed works costing not less than Rs. 10 lakhs "OR" ii) Two similar completed works costing not less than Rs.5 lakhs.
- b) The Firm should have a minimum Annual turnover of about Rs.20 lakhs (Rupees Fifteen Lakhs only) per year **OR** total Rs. 50 lakhs (Rupees Fifty Lakhs only) during last three years i.e. 2018-19, 2019-20 & 2020-21. A proof of balance sheet or the certificate from the Chartered Accountant must be enclosed along with the technical bid of the tender.
- c) The firm should have authorization from the manufacturer of Firefighting/Fire Alarm system
- d) The bidders should have office in Delhi or NCR.
- e) The bidders should have necessary qualification and experience in providing firefighting services and should have capacity to engage / employ qualified firemen, and competent manpower and tools to take up the work.
- f) Copy of GST Registration.
- g) Copy of PAN No. /TAN No.
- h) The Contractor should have valid Good and Service Tax Registration, Registration with Labour Department, PF and ESI Registration.
- i) The Contractor should be sole Proprietor concern/ Partnership firm or a company wherever applicable.
- j) The contractor need to have worked or have been working at least one job of following magnitude in the last five years in Fire fighting and Fire Alarm system's Annual Maintenance and repair work of similar nature.

The tenders of those Bidders who do not fulfill above eligibility criteria are liable for rejection.

#### 4- Terms and Conditions:

a) The Bidder should submit Technical Bid & financial Bid in separate sealed Envelopes super scribing "Technical Bid" and "Financial Bid" as the case may be as mentioned in the Tender Notice. The both the envelopes put in another envelope and sealed superscribed as " REPAIRING AND REPLACEMENT OF FAULTY & WORN OUT PARTS OF THE FIRE FIGHTING & FIRE ALARM SYSTEMS AND UNDERTAKING ITS COMPREHENSIVE ANNUAL

- **MAINTENANCE CONTRACT INSTALLED AT NIOS"** and submit in the above said address on specified date and time.
- b) THE WORK OF REPAIRING AND REPLACEMENT OF FAULTY & WORN OUT PARTS OF THE FIRE FIGHTING & FIRE ALARM SYSTEMS SHALL BE AWARDED ON THE BASIS OF LOWEST (L1) RATES IN TOTAL FOR THE EXECUTION OF SCOPE OF WORK MENTIONED AT CLAUSE:7(A).
- c) The Comprehensive AMC shall be started only after the satisfactory completion of rectification work of Fire Fighting & Fire Alarm System and complete liaison work for obtaining the NOC from the NOIDA Fire Service Department.
- d) The bidder must visit/examine the site and its surrounding on any working day by prior appointment with the Section Officer (Maintenance) for proper assessment of prospective assignment (scope of works) before submitting their offer. No claims later on shall be entertained.
- e) The successful Bidder whose tender is accepted shall, within 7 days from issuing / receiving the Letter of Acceptance, be required to pay Security Deposit an amount equal to 10% of the accepted bid and execute the Contract Agreement with NIOS as per the General Conditions / Special conditions enumerated in the tender documents, on a Non Judicial Stamp Paper of Rs. 100/- (Rupees One Hundred only). If he fails to pay Security or to execute the contract agreement within the stipulated time, the EMD shall stand forfeited, without prejudice to NIOS's right to rescind the contract and other rights and remedies warranted by the law.
- f) After receipt of Security Deposit or Performance Bank Guarantee from the successful Bidder, EMD will be refunded to all bidders within fortnight.
- g) Bidder should ensure that the documents are attached with Technical Bid as per Check list and all pages of Tender and documents are signed and stamped.
- h) Bidder/s shall keep his / their offer valid for a period of at least 3 months (90 days) from the date of opening of the Financial Bid/Price Bid. If any Bidder withdraws or amends impairs or derogates from the tender in any respect within the period of validity of his offer, the EMD is liable to be forfeited.
- i) NIOS may at any time after opening of the tender depute a team of its' officials to the site / work place / office of the Bidder to get the credentials of the information furnished by the Bidder verified by collecting the spot information as to the status, workmanship & quality of the services rendered by them. If any information furnished by the Bidder is found to be incorrect, the tender of such Bidder shall be liable for rejection.
- j) The Bidder must obtain for himself on his own responsibility and at his own expenses all the information which may be necessary for the purpose of tendering and for entering into a contract and must inspect the site of work

- and acquaint himself with all local conditions means of access to the work, nature of work and all matters appertaining thereto.
- k) Immediately, on receipt of intimation from the NIOS about the acceptance of tender, the successful Bidder will execute the work as per the instructions of Building and Maintenance Section, NIOS and the written acceptance of the tender will constitute a binding contract between the NIOS and the Bidder. It will be the responsibility of the Bidder to thoroughly examine the site in all respects.
- I) It shall be the responsibility of the Bidder to meet transportation, food, medical and any other requirements in respect of the workers engaged by it (Bidder) at NIOS and the NIOS shall have no liabilities in this regard.
- m) The NIOS will not be responsible for any damages, losses, theft, claims, financial or other injury to any workers deployed by service providing Bidder in the course of their performing the functions / duties, or for payment towards any compensation.

#### **5. STATUTORY COMPLIANCE BY THE BIDDER:**

- a) The firm shall ensure to provide all statutory requirements like Minimum wages, ESI, EPF & Bonus etc. to the workmen to be engaged for the execution of the Contract. In addition, they have to provide essential amenities like drinking water, first aid facility etc. to their employees as per Contract Labour Act 1970.
- b) The Bidder shall not deploy any person below the age of 20 years.
- c) The Agency shall be the employer of all the staff recruited and appointed by it for deployment at the NIOS premises. The NIOS shall not be responsible for loss of job to any employee(s) of the Agency in case of expiry/termination of the contract.
- d) The bidder should comply with the requirements of latest labour laws & Minimum Wages.
- e) Insurance:- The bidders shall keep the employees, its servants or agents indemnified against the employer, its servants or agents by any of contractor's employees or any other third party in connection with or arising out of the performance of the services under the agreement. The Contractor is also required to obtain the third party insurance for each incident/accident as follows.

a) Personal injury: 3.00 lakhsb) Property Damage: 3.00 lakhs

Besides covering all employees of contractor under ESIC Scheme, the contractor shall also require to obtain a workman compensation policy for an amount atleast 2lakhs per employee and covering all the staff during the contract period deployed at site. If contractor fails to comply with the above provisions, NIOS reserves its right to deduct suitable amount from the contractor's payment and pay the insurance company.

#### 6. DUTIES AND RESPONSIBLITIES OF THE BIDDER:

- a) The Bidder shall carry out all work with utmost care, giving due consideration to safety which shall not be compromised under any circumstance. It will be responsibility of the Bidder to promote an electrically safe workplace free from unauthorized exposure to electrical hazards for all its employees and outsourced personnel so as to prevent accidents to themselves, the public (community) and NIOS's property.
- b) The Bidder shall be responsible for taking good care of all specialized equipment, tools and tackles used for its works. It should bring to the notice of NIOS the works that are required to be undertaken in time. In case any damage is caused to the equipment due to negligence of any of the employees of the Bidder, Bidder undertakes to indemnify NIOS for such damages. The amount of damages quantified at discretion of the Secretary, NIOS shall be final & binding on the Bidder. NIOS shall be at liberty to deduct such amount of damages from any dues payable to the Bidder.
- c) The Bidder shall not assign the contract or sublet any portion of the contract. In case of breach of this condition, NIOS will serve a notice in writing on the Bidder rescinding the contract where upon the security deposit/performance bank guarantee shall stand forfeited to NIOS without prejudice to other remedies against the Bidder.
- d) The Bidder itself must be a qualified Fireman and should have a minimum 5years working experience in handling of such jobs.
- e) The employees deployed by the successful Bidder should observe the discipline and should see that the decency and decorum are maintained within the course of their employment.
- f) The Bidder should furnish the quarterly/ yearly maintenance schedule in consultation with Fire Officer.
- g) All personnel employed by the Bidder shall be medically fit and having good health.

#### 7. SCOPE OF THE WORK:

#### The scopes of the contract have three parts:-

- 1) The replacement/ repairing of defective parts in existing fire fighting & fire alarm systems installed at the NIOS building and premises.
- 2) The AMC of the fire fighting & fire alarm systems installed at the NIOS building and premises after rectification.
- 3) Obtaining & providing of NOC from the NOIDA Fire Service after complete testing of the system.

## A) Scope of the rectification of existing fire fighting & fire alarm systems installed at the NIOS building and premises.

#### **Fire Fighting System**

- a) Servicing and repairing of Jockey pump set including replacement of main shaft, bearing, making of bearing sheet, gland dori, seal, impeller complete as required including testing.
- b) Servicing and repairing of 2200 LPM fire pump including replacement of Bush, pressure plate, coupling nut bolt, rubber bush and repairing of gun Metal Impeller and making of key complete as required including testing.
- c) Supply and fixing single headed internal hydrant valve with instantaneous Gunmetal/Stainless Steel coupling of 63 mm dia with cast iron wheel ISI marked conforming to IS 5290 (Type -A) with blank Gunmetal/Stainless Steel cap and chain as required. (Single headed Stainless steel)
- d) Servicing of Fire Pump D.G. Set, repairing & rewinding of alternator including dismantling, supplying and replacement of worn out parts, reassembling, connection, testing etc. complete as required.
- e) Servicing of existing hose reel drums after dismantling and cleaning, greasing etc to smooth movement and rotation and re-fixing the same at existing point etc as required.
- f) Providing, laying, testing & commissioning of 'C' class heavy duty different diameter MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required.
- g) Supply, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with different diameter bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required
- h) Supply & fixing 63 mm dia gun metal short branch pipe with 20 mm nominal internal diameter size nozzle conforming to IS 903 suitable for instantaneous connection to interconnect hose pipe coupling as required Material –Stainless steel
- 15 i) Supply and fixing 63 dia, RRL hose mm pipe with 63 mm dia male and female couplings duly bound with GΙ wire, rivets etc. conforming to 636 IS (type-A) as required.RRL Hose with male female stainless steel coupling (Stainless Steel Grade: 304)
- painting of existing different diameter MS pipe line with two or more coats of signal red enamel paint to achieve even and smooth finish etc. complete as required.

- k) Supply and replacement 30 mtr long 20mm dia hose pipe, in place of exiting faulty hose pipe with suitable MS clamp at both ends etc complete as required.
- I) Providing & fixing of pressure switch in M.S. pipe line including connection etc. as required
- m) Supply & installation dial type (100 mm) Pressure gauge with isolation valve suitable for working pressure of 250 PSI.
- n) Providing, fixing, testing & commissioning of 15mm dia quartzoid bulb type sprinklers of rating 68 centigrade with degree required accessories(including deduction replaced of cost of item) a) Pendent Sprinkle
- o) Supply and Installation lead acid battery of 150ah 12volt for Generator

#### Fire Alarm system

- a) Supply, installation, testing and commissioning of 32 Zone microprocessor based automatic conventional master fire alarm control panel floor /wall mounted type fabricated out of CRCA Sheet, dust and vermin proof, powder coated, complete in all respect suitable for operation 220 V AC 50 Hz, power supply and battery charger, highly descriptive 2x16 character LCD Display, 100events, Zone wise customize locations, programmable relay mode, pre-alarm, one men test (walk test facility), shall have the facility to interface with PA system, with Power Supply & Battery Charger Volt with 2 nos 12 12 AΗ Maintenance free batteries. The Panel consists of:-
  - •P.A. Monitor Panel
  - •16 Way PA Selector & All call Facility
  - 250 Watt amplifier with microphone
- b) Supply, installation, testing & commissioning sector panel suitable for following zones, complete with visual indications for short circuit fault, open circuit fault, fire condition and all other standard facilities as per IS:2189 complete with all connections, interconnections as required. Zone: 4
- c) Supply, installation, testing & commissioning of manual call boxes of MS construction in surface/recess with stainless steel chain & hammer assembly complete with glass and push button etc. as required
- d) Supply, installation, testing & commissioning alarm fire sounder with facility to make announcement, mounted in M.S. with hinaed cover plate & suitable for box operation with amplifier including line matching transformer etc. complete as required.
- e) Response indicator on surface/recessed having two LED's metallic covers complete with all connections etc.

- f) Supply, installation, testing & commissioning of smoke detector with built in LED and mounting base complete with all connections etc. as required.
- g) Supplying & laying of 2x1.5 sq.mm fire alarm armored cable, 600/1000V rated with annealed copper conductor having XLPE insulation, steel wire armoring & FRLS outer sheath complete as required.

## B) Scope of the COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT of the fire fighting & fire alarm systems installed at the NIOS building and premises after rectification.

No.	Installation details	Scope of Work (1)	
	Maintenance & repairs works of fire fighting systems Viz Fi re Alarm system, PA system, talk back		
pump	m, nt & riser system, sprinkler syst <sub>2</sub> , Jockey pump	em, with diesel engine pump, wet riser pump, sprinkler	
1.	Fire Electrical Control Panels at Basement Hydrant pump Sprinkler pump Jockey pump Booster Pump- 15 HP at terrace	Proper Checking for functioning of the pumps, pressure testing, maintenance etc. complete. (including Electrical Repairs in order if required)	
2.	Fire Hydrant System	<ul> <li>a. Checking of system leakage &amp; line pressure in all gauges</li> <li>b. Checking of hoses and Branches pipes &amp; operation of all auxiliary units</li> <li>c. Checking the setting of the pressure switches and all the pumps by operating</li> <li>d. Checking of hydrant valves washers and Brass lock</li> <li>e. Starting the Pump manually through the control panels</li> <li>f. Operating the pumps in Auto Mode and checking the System</li> <li>g. Checking of isolation valves for glands leakages</li> <li>h. Checking up Diesel in stock, battery connections and Fluid level, correct it, if necessary</li> <li>i. In case of issuing maintenance report to Customer and advising the customer about deficiency</li> </ul>	
3.	Fire Sprinkler Pump	a. Checking of system leakage & line pressure in all gauges b. Checking of alarm valve and all the p umps c. Cleaning of sprinkler if accumulated by dust d. Checking of isolation valves and operation of all auxiliary unit e. Checking of sprinkler Bulb head for proper conditions	
4.	Fire Jockey Pump	a. Servicing, Overhauling, checking and testing of pump	
	Booster Pump-	a. Servicing, Overhauling, checking and testing of pump	

5.	Fire doors and Bucket	a. Servicing, checking, greasing and painting
6.	Fire Hydrant with hose reel	a. Checking including hose pipe, hose reel drum, jet
	, , , , , , , , , , , , , , , , , , , ,	shut off Nozzle, Branch pipe nozzle, cabinet door servicing, cleaning, painting, installation changing of
		gasket/ nut bolts if required.
7.	Fire Hydrant single	a. Checking including hose pipe, hose reel drum, jet
		shut off Nozzle, Branch pipe nozzle, cabinet door servicing, cleaning painting, installation changing of
8.	Air vessel	gasket/ nut bolts if required.  a. Checking including servicing, cleaning of pressure
		gauge, pressure switches, ball valves, piping servicing,
9.	Sprinkler Valve	installation and painting. a. Servicing, cleaning, installation, flashing attending
	Sprinkler valve	minor leakages.
10.	Siamese connection	a. Servicing, checking, greasing and painting.
11.	Pipe Line (Including all	a. For Hydrant pump, Sprinkler pump, Jockey Pump,
	risers)	Booster pump, including butter fly valves, NRV, CI Brackets and hook bolts,/ sprinkler system, alarm Bell,
		Servicing, checking, greasing and painting and
		replacement of gaskets if required attending minor
		leakages, Flashing, testing, commissioning both
12.	Inspection Reports	system.
12.	порессион керога	<ul> <li>a. Training of fire fighting system to our security personal at the starting of AMC contract.</li> </ul>
		b. All above installation and their reports Monthly
		with counter signature of agency's responsible
		person. c. Annual report based on Monthly report with
		c. Annual report based on Monthly report with counter signature of agency's responsible person
		and necessary submission of the same to Local
		Fire authority including Licensing with fire
		authority.  d. Demonstration of fire fighting system quarterly.
		e. Maintaining inspection register based on fire 'manual.
		f. Complaint to be attended within 24 hours.
		g. Emergency call shall be attended immediately.
		h. Required spare /components shall be arranged / supplied on urgent basis without disturbing the
		regular services.
		i. Installations register with proper location and
13.	Smoke alarm system	also inspection register.
15.	Smoke diditii systeiii	Each and every smoke alarm should be functional according to system design and arrangement should
		be such that any fault occurring in any of smoke
		alarm, connection breakage or panel problem may be
		identified automatically and repaired/ replaced
15.	PA system/ Fire detection	immediately. Must be operational 24 hours. Should be checked,
	system/Fire protection system/ Fire Alarm Panel	maintained & tested everyday
16.	Fire Alarm Panel	Servicing as and when required from the authorized
	DG set	Servicing as and when required from the authorized agency/ operation as and when required/ regular checkup
L		Gricolap

#### 2. MAINTENANCE OF FIRE FIGHTING & FIRE ALARM SYSTEMS

- a) The Maintenance Contract shall fully Comprehensive. All the major/minor repairing, replacement of faulty parts excluding underground pipe lines, Maintenance and Operation of both the systems installed in NIOS premises shall cover under the CAMC. No extra cost shall be paid except AMC charges by NIOS.
- b) The contractor shall be deployed one skilled person in NIOS premises round the clock and one helper on general shift (9am to 5.30pm) for keep the entire system fully operational and functional at all times.
- c) In case full system cannot be kept functional for unavoidable reason as much as possible, the installation shall be retained functional by isolating the defective section.

#### 3. MAINTENANCE REQUIREMENT OF SYSTEM COMPONENTS

For maintaining firefighting system following points are to be take n care of: -

- To ensure the availability of water in UG tank 24 hrs.
- To ensure the piping system is free from leakage. Any portion found to be leaking is to be isolated, rectified and connected with healthy system in shortest possible time.
- To ensure all pumps are in good running condition. Any pump found to be defective is to be isolated by closing valves and attended immediately and put in to service in minimum time.
- To ensure availability of power for electrical pumps, working of starters, switchgear and other electrical components.
- To ensure healthiness of diesel engine starting system, battery voltage, battery charger and availability of adequate diesel for engine operation.
- To check all landing valves of internal and external hydrants, isolating valve s and replace the defective ones whenever necessary.

#### 4. PERIODICAL TESTING:

For achieving the objective and meeting the requirement of periodical testing and checking the system is essential. Various activities and their duration have been tabulated in Table- 1.

#### 5. PROCEDURE:

Water for firefighting purpose is shall be changed / cleaned as per exigencies.

Maintaining Diesel Engine is very important for the system operation. Maintenance shall be through Authorized service center of manufacturer. Adequate diesel should either be available in the pump house or nearby so that operation is not discontinued for want of diesel -Management is required.

If any out let is found to be defective and replacement is not easily available the whole assembly should be removed and be replaced by bank off plate so that the systems remain operational.

Hose reels shall be subjected to regular inspection to ensure that all valves are functional, out let nozzle not chocked. All isolating valves shall be checked for

operation. The valve s in closed position be opened and closed.

The hosepipes and their coupling shall be checked to ensure there is no leakage during their use. The female coupling cam tooth mechanism be operated and lubricated for ensuring ease of operation.

Power supply to the pump house is not to be discontinued for any reason. It has to be ensured that there are no obstructions in front of the hydrants impending accessibility.

**TABLE - 1** 

#### **6. PERIODICAL TESTING AND MAINTENANCE CHART**

Sr.No	System	Activity	Duration
	Component		
1	Water Tanks	(i) Level Check	Daily
		(ii) Cleaning	Once in a year
2	Pumps	(i) Running	Daily
		(ii) Test flow	Quarterly
		(iii) Lubrication	Quarterly
3	Engine	(i) Running	Daily
		(ii) Lubrication	Quarterly
		(iii) Battery	Weekly
		(iv) Fuel Tank/ Radiator	Daily
		(v) Servicing	As per engine manufacturer's recommendations
4	Motor	(i) Running	Daily
		(ii) Starter	Weekly
		(iii) Insulation Resistance	Twice in a year
5	Piping	(i) Pressure	Weekly
		(ii) Flushing	Once in a year
6	Valves (landing and isolation)	(i) Operation	Monthly
	Control System	(i) Operation	Monthly
		(ii) Connection and System Components	Quarterly
8	Hose Reel and Hose Pipes	(i) Physical check	Weekly
		(ii) Operation check	Quarterly
		(iii) Replacement	Depending upon

			physical condition,
10	Instantaneous coupling	(i) Physical Check	Monthly
		(ii) Lubrication	Once in Six Months
11	Painting	(i) Out Door	Once in a year
		(ii) In door	Once in a year
12	Mock drill	To be carried out	Once in Six Months

#### 7. MAINTENANCE OF AUTOMATIC SPRINKLER SYSTEM

Maintenance of fire fighting installation has been described **at A**, which hold good for sprinkler installation also. In addition following points shall be taken care.

- Sprinkler shall not be reconditioned or repaired.
- Used / or defective sprinklers shall be replaced by new ones.
- Sprinklers shall not be painted after installation.
- Spare Sprinklers A stock of spare sprinklers shall be kept in F ire control Room so that prompt replacement is possible after operation/ damage of a sprinkler head. A minimum of 5% of the installed capacity or 25 sprinklers of all types, whichever is more, shall be kept in stock.
- Spanners for sprinklers and Teflon tape shall also keep along with spare sprinklers in readiness. The in operative part, if defective shall be attended to and connected with the operative system.

#### 8. Action following Sprinkler operation:

- Following the operation of sprinklers, the operated head shall be replaced with new ones and water supply shall be restored.
- The sprinklers in the vicinity of the operated sprinklers shall also be checked for damage by heat or any other cause and replaced if necessary.
- The sprinkler pump shall not be shut off until complete extinguishments of the fire. The starting of the pump shall be automatic but the stopping of the pump after extinguishments shall be manual. All piping shall be examined to determine its conditions at least after 3 months.
- All installation valves and associated equipment shall be serviced and tested annually. Discharge test of sprinklers shall be carried out at least once in three months.
- Manual testing of the system shall be carried out once in six months.
- When normally opened valves are closed following system operation or test, suitable procedure shall be instituted to ensure that they are re -opened.
- The entire system shall flush at least once in a year.
- The sprinkler bulbs shall be kept free from paint or dust.
- Maintenance and testing shall be carried out in a planned and systematic manner and records kept. Only trained personnel shall be engaged in the work.

#### 9. MAINTENANCE OF FIRE ALARM WEEKLY TESTS:

The following tests shall be made every week to ensure that the system is capable of operating under alarm conditions.

- Once a week, at least one trigger device on one zone circuit shall be operated to test the ability of the control and indicating equipment to receive a signal and to sound the alarm and operate other warning devices.
- If there is more than one zone on a system having unmonitored wiring each unmonitored zone shall be tested each week, but without sounding the alarm more than once.
- The control and indicating equipment shall be visually inspected for signs of moisture ingress and other deterioration.
- A visual inspection shall be made to ensure that structural or occupancy changes have not affected the requirements for re-sitting of trigger devices, manual call points, smoke detectors and heat detectors.
- Any defect shall be recorded in the logbook reported to the responsible person, and action taken to correct it.
- All the wiring of smoke alarm should be done in such a way that each and every smoke alarm should be functional according to system design and arrangement should be such that any fault occurring in any of smoke alarm, connection breakage or panel problem may be identified automatically and repaired/ replaced immediately

#### 10. GENERAL POINTS ABOUT DETECTORS:

- It is essential to ensure specified range of sensitivity range shall be checked on equipment as specified.
- If the operation of the alarm sounders and / or the transmission of the alarm signal has been prevented by disconnection, then a further test shall be carried out to prove the final reinstatement of the sounders, and if permissible, the alarm transmission circuit.
- A visual examination of the battery and connections shall be made to ensure that they are in good conditions. Action shall be taken to remedy any defect, including low electrolyte level.
- Any defect shall be recorded in the logbook, reported to the responsible person, and action taken to correct it.

#### 11. QUARTERLY INSPECTION AND TEST

The following checklist and test sequence is recommended.

Batteries and their connections shall be examined and tested to ensure that they are in goods serviceable condition.

The alarm functions of control and indicating equipment shall be checked by the operations of a trigger device in each zone as described.

The operation of alarm sounders and any link to remote manned center shall be tested. All ancillary functions of the control panel shall also be tested where practicable.

All fault indicators and their circuits shall be checked preferably by simulation of fault conditions.

It is essential to apply frequent sensitivity checks and routine tests as prescribed in the rules so that the correct sensitivity levels/ degree is maintained during the entire service span of the installation.

#### 12. CLEANING AND MAINTENANCE: -

Detectors require periodic cleaning to remove dust or dust accumulated. The frequency of cleaning depends on the type of detector and the local ambient conditions. In any case, the interval shall not exceed a period of 3 months, for each detector.

The cleaning, checking, operating and sensitivity adjustment shall be attempted only after referring manufacturers' instructions.

These instructions shall details methods such as creating vacuum to remove loose dust and insects or washing heavy greasy and grimy deposits, following partial disassembly or the washing of detectors to remove contamination.

#### 13.- FIRE PUMP HOUSE (Basement)

The glands/ packing of pumps, sluice valves shall be maintained in good condition and any leakage there in shall be stopped immediately.

Special care is to be taken to check working of non -return valves. Bearing caps shall be checked weekly and topped up.

Correct type of oil/grease must be used as per lubrication survey. Starter contacts shall be checked weekly and be replaced if necessary.

Insulation resistance of motors shall be checked once in 6 months and record shall be maintained. Starting mechanism of diesel engine, battery, chargers must be checked regularly.

As far as possible the starting mechanism and its auxiliaries shall be uniform for all the diesel engine driven fire pumps. There shall at least one set alternative available for immediate replacement.

Diesel tank provided inside the fire pump room shall be checked every day and maintained to full capacity.

Level of water in prime tank shall be checked daily.

In case of negative suction, leaking of foot -valve may cause serious problems for starting of pump. Auto filling arrangement for priming tank shall be ensured and checked -up every day.

#### 14. OTHER WORKS TO BE CARRIED OUT BY THE PARTY

- A tenderer shall deem to have full knowledge of installations whether he inspects it or not.
- The agency shall attend unlimited breakdowns.
- The scope of this contract includes all major and minor repairs and replacement of spare parts except underground pipe lines. If the underground pipe line has gone faulty and required to replace NIOS will pay the charges of the spares according to the present market rate after producing the purchase bill. The spares will be installed only after approval from NIOS. The labour charges will be borne by the Contractor.
- The contractor shall submit his tender only after carefully examining the whole of the tender documents and the conditions of tender and of contract.
- The party should carry out mock drill once in six months.
- Liaison work for obtaining the NOC/ fitness certificate from the Fire department is the sole responsibility of the contractor. Any additional requirement of equipments

by the Fire Department for issuing the NOC, that will bear by NIOS.

- The Contractor shall ensure that the process of renewal of NOC/fitness certificate must be initiated in advance so that the NOC/ fitness certificate is issued by the fire department within time.
- All the tools, tackles, scaffolding, high rise ladders, safety equipments etc required for proper maintenance has to be provided by the Contractor.
- Filling of sand in the fire buckets and replacement of damaged fire buckets will be sole responsibility of the contractor as and when required.

#### **GENERAL TERMS AND CONDITIONS**

- The Annual Maintenance contract of Fire fighting and Fire alarm system will be awarded initially for a period of one year and will be further extended for a period of two more years on year to year basis on mutual consent and the basis of satisfactory performance of the firm on the same rates, terms and conditions of the tender document.
- 2. Earnest Money Deposit of Rs. 30,000/- (Rupees Thirty Thousands only) lumpsum in the form of Demand Draft in favour of "The Secretary, NIOS, payable at NOIDA" shall be required to be deposited along with the technical bid of the tender appended at Annexure-I.
- 3. Performance Security in term of 10% of the contract value in the form of Demand Draft in favour of the Secretary, NIOS, payable at NOIDA shall be required to be deposited along with the acceptance of the offer. The Earnest Money Deposit (EMD) shall be refunded to the firm without any interest on receipt of Performance Security.
- 4. A quotation received without EMD or the proof of the claim for exemption as per the rule of Govt. of India shall be rejected as non-responsive at the quotation opening stage.
- 5. The Earnest Money Deposit (EMD) of the unsuccessful firms will be discharged / returned to them without any interest only after finalization and award of the contract to the successful firm.
- 6. Tenders received after the closing date and time prescribed in the tender document shall NOT be accepted under any circumstances. No quotation shall be accepted by post.
- 7. The incomplete and conditional tenders will be rejected. Quoting unrealistic rates will also be treated as disqualification.
- 8. The NIOS reserves the right to accept or reject any or all the tenders received by it without assigning any reason whatsoever.
- 9. In case, the date of submission/opening of tenders happens to be holiday, the tenders shall be received /opened the next working day.
- 10. In case, the firm fails to comply the terms & conditions, the NIOS may terminate the contract without assigning any reason.

- 11. The successful Firm shall be liable to complete the repairing & rectification work of Fire fighting and Fire alarm systems installed at the NIOS within a period of three months from the date of award of the work and submit the "No Objection Certificate" obtained from the Noida Fire Service Department. If the successful Firm does not complete the work timely or leave the work midway or leaves the work altogether and could not submit the No Objection Certificate, the performance security deposit will be forfeited.
- 12. Training of the NIOS security personnel, quarterly demonstration of full fire fighting system, weekly testing of smoke alarm system, obtaining NOC from NOIDA Authority, keeping/ maintaining firefighting equipment as per government rules and acts, keeping fire fighting system/ detection system 24 hours active and refilling/validating/repair/ replacement of defective equipments is the sole responsibility of contractor at no extra cost.
- 13. No Firms will be allowed to withdraw after submission of tender/ at the time of opening of the tender. In such case, the EMD submitted by the firm shall liable to be forfeited.
- 14. The NIOS reserves the right to award the tender to more than one Firm.
- 15. The NIOS reserves the right to relax/withdraw any of the terms and conditions mentioned in the Tender Documents so as to overcome any problem encountered during the selection of the Firms and also during the course of the execution of the contract.
- 16. If a firm after award of the contract violates any of the terms & conditions, it shall be liable to be blacklisted and its performance security shall be forfeited.
- 17. Canvassing in any form will be viewed seriously and if any Firm is found to be resorted to such practice, the tender of such firm will be rejected.
- 18. All disputes, differences of any kind whatsoever arising out of or in any way touching or concerning this tender or subject matter thereof or the representative rights, duties or liability of the parties shall be referred to the sole arbitrator appointed by the Chairperson, NIOS. Jurisdiction for all kinds of disputes will be at Delhi Court only.

Secretary, NIOS

# TENDER FOR REPAIRING AND REPLACEMENT OF FAULTY & WORN OUT PARTS OF THE FIRE FIGHTING & FIRE ALARM SYSTEMS AND UNDERTAKING ITS COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT INSTALLED AT NIOS,A-24/25, SECTOR-62, NOIDA,U.P.

<b>Technical Bid:</b>	(ANNEXURE-I)
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1	***		
1. Name of the firms:	M/ s		
1. Name of the firms:	Official Address:		
	City:PIN:		
	Telephone No(O)(R )		
	Mobile No		
	E-mail ID		
	Name of Contact Person		
2. Year of Establishment			
(Attach Supporting Document)			
3. Status of the Firm			
(Proprietor/Company)			
(Attach Supporting Document)			
2. Earnest Money Deposit Amount & their details:	Rs(Rupees) Drawn on		
	Vide DD No.		
	In favour of Secretary, NIOS is enclosed.		
3. Registration of various authorities and their Nos. (Self attested Copies of the same shall be enclosed)	A. PAN No B. G.S.T. No		

Self certificate Letter No and date  Authorized Name & Signatory		_	
Annual turnover Amount in Rs (Lakhs ) Annual Average turnover in Rs.	19	- 20	2020- 21
I. Name of the Agend Address of Work &  Date of award of w	Location_ vork:		
Date of completion II. Name of the Agend Address of Work 8  Date of award of w	: cy: Location vork		
	Financial Year  Annual turnover Amount in Rs (Lakhs)  I. Name of the Agend Address of Work & Date of award of work done in the Agend Address of Work done in the Agend Address of Work done in the Agend Address of Work & Date of award & Dat	Financial Year 2018- 19  Annual turnover Amount in Rs (Lakhs )  Annual Average turnover in Rs. (Lakhs)  I. Name of the Agency:  Address of Work & Location_  Date of award of work:  Value of Work done:  Date of completion:  II. Name of the Agency:  Address of Work & Location	Authorized Name & Signatory  Financial Year 2018- 2019 19 - 20  Annual turnover Amount in Rs (Lakhs )  Annual Average turnover in Rs. (Lakhs)  I. Name of the Agency:  Address of Work & Location  Date of award of work:  Value of Work done:

I/We certify that the information furnished above are true and correct to the best of my/our knowledge and belief. No fact has been concealed. The Terms and Conditions of the tenders are acceptable to us.

Name & Signature with seal of the Bidder

Capacity/Authority to sign

Full Address

#### LIST OF ACCEPTABLE MAKES OF EQUIPMENTS & ACCESSORIESLIST OF MAKES

Fire alarm main control panel	Agni Devices/Soft Chip/ Agni Com.
Sounder/Hooter	Agni Devices/Soft Chip/ Agni Com.
Heat/Smoke detector	Agni Devices/Soft Chip/ Agni Com.
Battery	EXIDE/AMRON
Control copper conductor armoured cable	National/ECKO/Havells/Skytone/POLYCAB (ISI)
Mannual Call Box	Exide/AMCO/PANASONIC/AMARON
Butterfly Valve (IS:13095)	Audco/Kartar/sant
MS/G.I Pipe (C-Class) (IS:1339)	Jindal (Hissar)/Prakash Surya/Tata
&(IS:3589)	
Branch Pipe (IS:287)	Lifeguard/Minimax/ Agni Devices/Safex
Gum Metal Coupling (IS: 903)	Lifeguard/Minimax/ Agni Devices/Safex
Hose Reel Drum with GM Nozzles (IS: 884)	Lifeguard/Minimax/ Agni Devices/Safex
Hose Reel Drum	Lifeguard/Minimax/ Agni Devices/Safex
First aid thermo plastic hose reel (Textile	Lifeguard/Minimax/ Agni Devices/Safex
Reinforced typeII)	
RRL Hose Pipe	Lifeguard/Minimax/ Agni Devices/Safex
Pressure Switch	Indfoss/Danfoss/Switzer
Pressure Gauge	Fiebig/H-Guru/Praga
Fire Bucket	ISI Mark

### **Checklist of documents**

## Please mark ( $\sqrt{\ }$ )

1. Earnest Money Deposit Amount of Rs. 30,000/ - in favour of Secretary, NIOS is enclosed.	Yes	No
2. Registration of various authorities and their Numbers for Eligibility Criteria (Selfattested Copies of the same shall be enclosed)	Yes	No
a) PAN under Income tax authority (Govt. of India),	Yes	No
d) G.S.T. Registration Number	Yes	No
e) Authorization Certificate		
1) Fire Fighting System	Yes	No
2) Fire Alarm.	Yes	No
3. The firm should give Self- Certificate that they have not been blacklisted by any Central/State Govt. Agency in past three years.	Yes	No
4. Average annual financial turnover during the last three year ending 31 st March of the previous financial year should having minimum 50LAKH. The copy of certified certificate from Chartered Accountant must be enclosed.	Yes	No
5. Copies of Experience certificates.		
Experience of minimum FIVE(5) year duration for having worked as Fire Fighting system Maintenance services/ work in any Office Building of <i>Government/ PSU / Private organizations of reputed.</i> The party / agency should have completed as ending last day of month previous to the		
one which application are invited should be either of the One work of Rs 10 lakhs per annum or above OR Two works of Rs 5 lakhs per annum each.  Please Note- Self attested Copy of work-order or completion certificate should be enclosed.	Yes	No



(An Autonomous Institution of the Ministry of Education, Department of School Education & Literacy, Government of India)

> A-24/25, Institutional Area, Sector-62, NOIDA – 201309 (U.P.)

#### **FINANCIAL BID**

## TENDER FOR REPAIRING AND REPLACEMENT OF FAULTY & WORN OUT PARTS OF THE FIRE FIGHTING & FIRE ALARM SYSTEMS AND UNDERTAKING ITS COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT INSTALLED AT NIOS,A-24/25, SECTOR-62, NOIDA,U.P.

I/We have gone through the tender document, understood it fully and declare that I/We shall strictly adhere to the terms and conditions mentioned therein the tender document. Our rates are as under:

S.NO.	Description of Work	Qty.	Unit Rate	Total rate excluding GST
1.	Servicing and Repairing of Jockey Pump Set	1no.		
2.	Servicing and repairing of 2200 LPM fire pump	1no.		
3.	Supply and fixing single headed internal hydrant valve with instantaneous Gunmetal/Stainless Steel coupling of 63 mm dia with cast iron wheel ISI marked conforming to IS 5290 (Type -A) with blank Gunmetal/Stainless Steel cap and chain as required.	31nos.		
4.	Servicing of Fire Pump D.G. Set supplying and replacement of following parts complete as required. a) Oil filter and Diesel filter 1 Set. b) Engine Oil—20Ltr c) Coolant -15 Ltr. d) B-Check Kit—01	1Job		
5.	Servicing of existing hose reel drums after dismantling and cleaning, greasing etc to smooth movement and rotation and refixing the same at existing point etc.	27nos.		

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6.	Supply, fixing, testing and commissioning of		
	butterfly valve of PN 1.6 rating with		
	bronze/gunmetal seat duly ISI marked		
	complete with nuts, bolts, washers, gaskets		
	conforming to IS 13095 of following sizes		
	80 mm dia.	4nos.	
	100mm dia.	4nos.	
	150mm dia.	4nos.	
7.	Providing, laying, testing & commissioning		
	of 'C' class heavy duty different diameter		
	MS pipe conforming to IS 3589/IS 1239		
	including Welding, fittings like elbows, tees,		
	flanges, tapers, nuts bolts, gaskets etc. and		
	fixing the pipe on the wall/ceiling with		
	suitable clamp/support frame and painting		
	80 mm dia.	12mtr.	
	100mm dia.	12mtr.	
	150mm dia.	12mtr.	
8.	Supply & fixing 63 mm dia gun metal short		
	branch pipe with 20 mm nominal internal		
	diameter size nozzle conforming to IS 903	15nos.	
	suitable for instantaneous connection to		
	interconnect hose pipe coupling		
9.	Supply and fixing 63 mm dia, 15 m long		
	RRL hose pipe with 63 mm dia male and		
	female couplings duly bound with GI wire,	10nos.	
	rivets etc. conforming to IS 636(type-A)	101105.	
	RRL Hose with male female stainless steel		
	coupling		
10.	Painting of existing MS pipe line with two or		
	more coats of signal red enamel paint to		
	achieve even and smooth finish etc	12Mtr.	
	250mm dia MS pipe	200Mtr.	
	150MM dia MS Pipe	200Mtr.	
	100MM dia MS Pipe	150Mtr.	
	80MM dia MS Pipe	200Mtr.	
	25 to 40MM dia MS Pipe	2001101	
11.	Supply and replacement 30 mtr. Long		
	20mm dia hose pipe, in place of exiting	10Nos.	
	faulty hose pipe with suitable MS clamp at	101103.	
	both ends etc complete as reqd.		
12.	Providing & fixing of pressure switch in M.S.	4Nos.	
	pipe line including connection etc	111031	
13.	Supply & installation dial type (100 mm)		
	Pressure gauge with isolation valve suitable	4Nos.	
	for working pressure of 250 PSI.		
14.	Providing, fixing, testing & commissioning		
	of 15mm dia quartzoid bulb type sprinklers	50Nos.	
	of rating 68 degree centigrade with	JUNUS.	
	required accessories(Pendent Sprinkle )		
15.	Lead Acid battery 150 AH 12 Volt	2Nos.	

16.	Supplying and fixing first-aid Hose Reel with MS construction spray painted in post office red, conforming to IS 884 complete with the following as required. 20 mm nominal internal dia water hose thermoplastic (Textile reinforced) type -2 as per IS: 12585 20 mm nominal internal dia gun metal globe valve & nozzle. Drum and brackets for fixing the equipments on wall. Connections from riser with 25 mm dia stop gun metal valve & M.S. Pipe and socket. 30 m	5nos.	
17.	Supplying & fixing Hose box (Double Door) (900mm x 600mm x 500mm) 16 gauge suitable for 2 no.15mtr. Hose and 1 no short branch pipe and 1 no hydrant. Complete in all respect.	4nos.	
18.	Repairing /Servicing of Fire Fighting Electric panel and Diesel Engine Pump Panel i/c Replacement of all defective parts and making functional etc. as required.	1job	
19.	Supply, installation, testing and commissioning of 32 Zone microprocessor based automatic conventional master fire alarm control panel floor /wall mounted type fabricated out of 1.6mm thick CRCA Sheet, dust and vermin proof, powder coated, complete in all respect suitable for operation 220 V AC 50 Hz, power supply and battery charger, highly descriptive 2x16 character LCD Display, 100events, Zone wise customize locations, programmable relay mode, prealarm, one men test (walk test facility), shall have the facility to interface with PA system, with Power Supply & Battery Charger with 2 nos 12 Volt 12 AH Maintenance free batteries. The Panel consists of:  •P.A. Monitor Panel •16 Way PA Selector & All call Facility • 250 Watt amplifier with microphone	O1No.	

20.	Supply, installation, testing & commissioning sector panel suitable for following zones, complete with visual indications for short circuit fault, open circuit fault, fire condition and all other standard facilities as per IS:2189 complete with all connections, interconnections as required .4 Zone	18Nos.	
21.	Supply, installation, testing & commissioning of manual call boxes of MS construction in surface/recess with stainless steel chain & hammer assembly complete with glass and push button etc.	18Nos.	
22.	Supply, installation, testing & commissioning fire alarm sounder with facility to make announcement, mounted in M.S. box (16 SWG) with hinged cover plate & suitable for operation with amplifier i/c line matching transformer etc. complete .	20Nos.	
23.	Response indicator on surface/recessed MS Box having two LED's metallic covers complete with all connections etc.	200Nos.	
24.	Supply installation, testing & commissioning of smoke detector with built in LED and mounting base complete with all connections etc. as required.	100Nos.	
25.	Supply & laying of 2x1.5 sqmm fire alarm armoured cable, 600/1000V rated with annealed copper conductor having XLPE insulation, steel wire armouring & FRLS outer sheath complete as required.	500Mt.	
26.	NOC from NOIDA FIRE SERVICE (Applicable for one time)		
		Total charges	
27.	Comprehensive Annual Maintenance Contract of Fire Fighting & Fire Alarm System as per the scope of the contract mentioned at B-1 to 14	Per Annum inclusive all	

We have fully understood all the conditions made for the captioned work and have taken into account all the Conditions while quoting the rates in the tender document envelope-II (financial bid).

I/We undertake that the terms and conditions of the tender are acceptable to us.

#### Note:

- a) The numbers and measurements of items mentioned above are tentative. The same will decrease or increase 10-20% on actual. The actual payment will be made according to Unit Rate.
- b) Quoted rates should be workable and reasonable and should include incidental and all over heads and profits. The worksheet showing the breakup of the total rates quoted, enclosed with the schedule of quantity should be filled carefully.
- c) In case of the rates quoted are found unreasonable and do not confirm the specifications or stipulations given in the tender document, the financial bid submitted would be rejected and the final decision in this regard will be that of the NIOS.
- d) Rates shall have to be quoted both in words and figures.
- e) The work of RECTIFICATION (S.no: 1-26 in the financial bid) will be awarded fully on the basis of the Lowest Rate in total charges.

(Signature of the party with stamp)
Name:
Telephone No