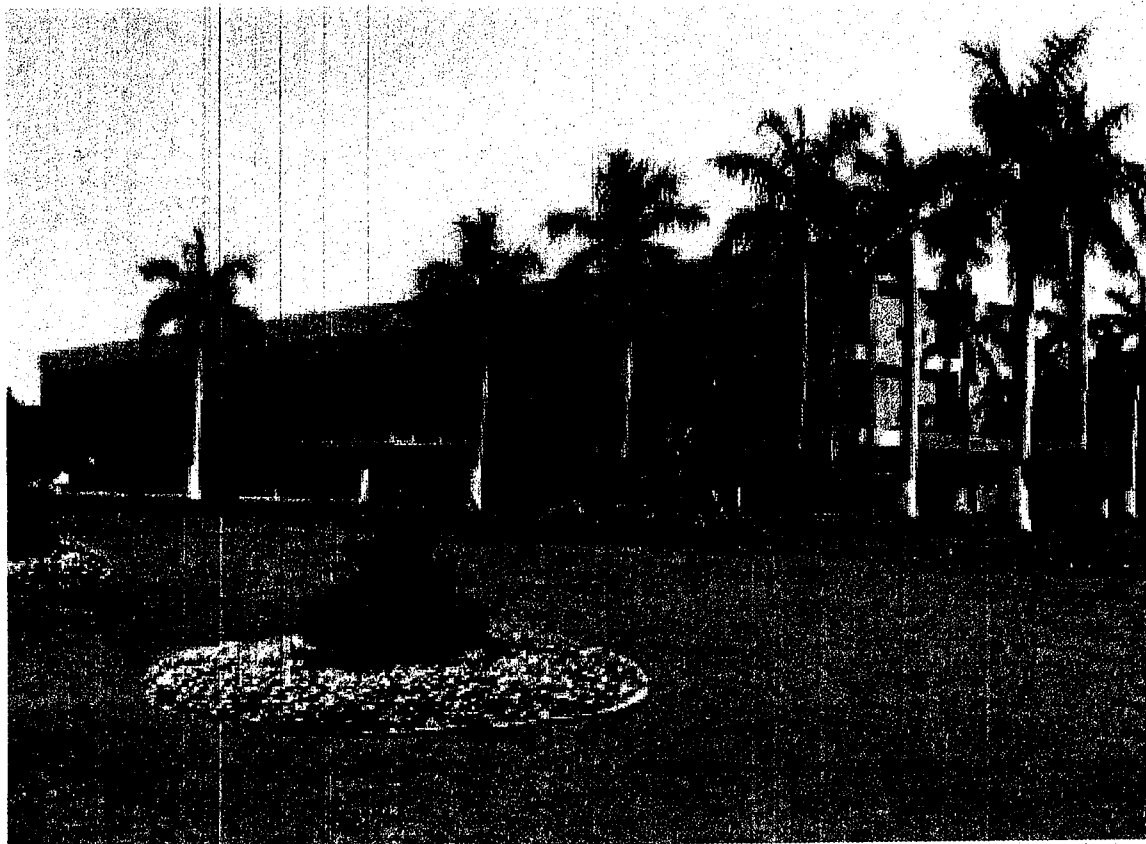


**AGENDA FOR 11<sup>TH</sup>  
MEETING OF BUILDING &  
WORKS COMMITTEE**

**JULY-28, 2009**



**NATIONAL INSTITUTE OF TECHNOLOGY  
KURUKSHETRA-136119**

# **AGENDA FOR 11<sup>TH</sup> MEETING OF BUILDING & WORKS COMMITTEE**

**VENUE : SENATE HALL  
NATIONAL INSTITUTE OF  
TECHNOLOGY  
KURUKSHETRA**

**DAY : TUESDAY**

**DATE : 28-07-2009**

**TIME : 11.00 AM**

# NATIONAL INSTITUTE OF TECHNOLOGY KURUKSHETRA

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## CONSTITUTION OF BUILDING AND WORKS COMMITTEE

- |    |   |                        |
|----|---|------------------------|
| 1. | <b>Dr. M.N. Bandyopadhyay,</b><br>Director,<br>National Institute of Technology,<br>Kurukshetra   | <b>Chairperson</b>     |
| 2  | <b>Nominee of the MHRD</b><br>On the B & WC of the<br>Institute.  | <b>Member</b>          |
| 3  | <b>Sh. Vijay Prakash Saha</b><br>Chief Technical Advisor,<br>MECON, Chandigarh,<br>(Safety, Environment, Energy and Management Consultant),<br>W-16, Green Park, New Delhi-110016 | <b>Member</b>          |
| 4  | <b>Dr. Krishna Gopal</b><br>Dean (Planning & Development)<br>National Institute of Technology,<br>Kurukshetra   | <b>Member</b>          |
| 5. | <b>Er. Niranjana Singh,</b><br>Superintending Engineer (Civil),<br>Chandigarh Central Circle, CPWD,<br>Chandigarh   | <b>Member</b>          |
| 6. | <b>Er. Vimal Kumar</b><br>Superintending Engineer (Electrical),<br>Chandigarh Electrical Central Circle, CPWD,<br>Chandigarh  | <b>Member</b>          |
| 7. | <b>Dr. Anil Kumar</b><br>Director, Gate way College of Architectural<br>& Design , Gateway Campus, Sector-11<br>Sonapat -131001   | <b>Special Invitee</b> |
| 8. | <b>Dr. S.K. Sharma,</b><br>Dean (Estate, EM & Constn.),<br>National Institute of Technology,<br>Kurukshetra   | <b>Special Invitee</b> |
| 9. | <b>Dr. V.P Singh</b><br>Prof. In-charge (Estate & Construction),<br>National Institute of Technology,<br>Kurukshetra  | <b>Special Invitee</b> |

- |     |   |                         |
|-----|---|-------------------------|
| 10. | <b>Prof. C.P Bansal</b><br>Prof. I/C (EM)<br>National Institute of Technology,<br>Kurukshetra                         | <b>Special Invitee</b>  |
| 11. | <b>Er. P.K Aggarwal</b><br>Executive Engineer (Construction cell)<br>National Institute of Technology,<br>Kurukshetra | <b>Special Invitee</b>  |
| 12. | <b>Sh. D.K. Kaushik,</b><br>Assistant Engineer (Elect.),<br>National Institute of Technology,<br>Kurukshetra          | <b>Special Invitee</b>  |
| 13. | <b>Sh. S.N. Kaushik,</b><br>Assistant Engineer (Civil),<br>National Institute of Technology,<br>Kurukshetra           | <b>Special Invitee</b>  |
| 14. | <b>Sh. R.P.S Lohchab</b><br>Registrar,<br>National Institute of Technology,<br>Kurukshetra                            | <b>Member-Secretary</b> |

Item No.11.1

To confirm the minutes of the 10<sup>th</sup> Meeting of Building & Works Committee held on 19.02.2009

The minutes of the 10<sup>th</sup> meeting of Building & Works Committee held on 19.02.2009 were circulated amongst the members vide letter No. NIT/10<sup>th</sup> BWC/1319 dated 20-02-2009. No comments were received from any member.

The minutes may be confirmed.

Item No: 11.2

To Report the action taken on the minutes of the 10th meeting of the Building & Works Committee held on 19.02.2009.

Item No.	Subject	Decision taken	Action taken
10.1	To consider the minutes of the 10th meeting of BWC held on 19.02.2009	Minutes confirmed	No action is required.
10.2	To report the action taken on the minutes of the 10 <sup>th</sup> meeting of B&WC held on 19.02.2009.	The Committee noted the action taken on various decisions taken by B&WC.	
		Item (14.3) & (15.2). The Chief Engineer, PWD (B&R) may again be requested to take up installation of Tubewell for PWD Colony on priority basis	Action is being taken by the PWD (B&R), Govt. of Haryana
		Item No. (2.41)(4.17) & (9.13) The B&WC approved the RCE amounting to Rs.5.82 crore for installation of HT/LT sub station.	Work allotted to CPWD Separate item attached vide item no. 11.3
		Item (19.4) B&WC approved the RCE amounting to Rs. 221.80 lacs for Construction of a Gymnasium Hall in the Institute.	Funds are yet to be allocated.
		Item (19.15) B&WC approved the RCE amounting to Rs.18.39 lacs. for the Construction of Training & Placement Department building in the Institute.	Funds are yet to be allocated.
		Item (17.16, 20.12 & 1.9) B&WC approved the RCE amounting to Rs. 64.15 lacs for Const. of Community Centre in Institute.	Funds are yet to be allocated.
		Item No. (2.40) The B&WC approved the RCE amounting to Rs. 8.00 lacs for Provision of geysers and exhaust fans in hostel toilets. BWC in its 7 <sup>th</sup> meeting, however, decided that the institute may opt for Solar Heaters instead of geysers and advantage of Govt. subsidy on Solar Heaters may be taken for the purpose.	Separate item attached. Vide item no.11.4

		Item No. (2.42 & 4.17) The B&WC approved the RCE amounting to Rs.154.00 lacs for installation of DG sets.	Funds are yet to be allocated.
		Item No. (4.11)) The B&WC approved the RCE amounting to Rs. 27.99 lacs for reconstruction of damaged/cracked/tilted compound walls in G type Houses of the campus.	Work in progress.
		Item No. (6.5) The Building & works Committee approved the RRCE amounting to Rs. 15.62 lacs for Provision of Community Scooter Stand for E&F type houses at NIT Kurukshetra.	Funds are yet to be allocated.
		Item No. (6.7) The Building & Works Committee approved the RCE of Rs. 5.00 lacs for Renovation /special repair of Old Health Centre Building.	Funds are yet to be allocated.
		Item No. (6.10) The Building & Works Committee approved the RCE amounting to Rs. 26.95 lacs for provision of two nos. Institute Main Gates.	Funds are yet to be allocated.
		Item No. (6.11) The Building & Works Committee approved the RCE amounting to Rs. 40.02 lacs for provision of Badminton Hall in the Institute.	Funds are yet to be allocated.
		Item No. (6.12) The Building & Works Committee approved the RCE amounting to Rs. 46.55 lacs for Construction of 4 nos. mess staff bearers barracks.	Funds are yet to be allocated.
		Item No. (6.13) The Building & Works Committee approved the RCE amounting to Rs. 30.57 lacs for Provision of Stores in Hostels.	Funds are yet to be allocated.
		Item NO. (6.14) The Building & Works Committee approved the RCE amounting to Rs. 52.07 lacs for Renovation of offices of faculty and other officers.	Funds are yet to be allocated.
		Item No (6.15) The Building & Works Committee approved the	Work allotted to CPWD. A Separate Item attached.



		RCE amounting to Rs. 49.29 lacs for Provision of graded seating arrangement for 2000 persons in OAT.	Vide item No. 11.5
		The B&WC approved the RCE amounting to Rs.32.00 Lacs vide item No.8.5 for the extension of existing lecture theaters ( 3 Nos.) at NITK	Funds are awaited
		The B&WC approved the RCE amounting to Rs.2500 Lacs for the construction of Mega Boys Hostel of 1000 capacity at NIT, Kurukshetra	Funds are awaited.
		Item no. (8.7) The B&WC approved the RCE amounting to Rs.103.00 Lacs for the construction of additional office Rooms for faculty/ staff at NIT, Kurukshetra..	Funds are awaited.
		Item no. (8.9) The B&WC approved the RCE amounting to Rs.550 Lacs for the construction of Convocation Hall of 3000 capacity at NIT, KKR	Funds are awaited.
		Item no. (8.10)The B&WC approved the RCE amounting to Rs.67.4 Lacs for the construction of Institute Faculty Guest House at NIT, Kurukshetra	Work in progress Separate item attached vide item no. 11.6
		Item no. (8.11) The B&WC approved the RCE amounting to Rs.68.8 Lacs for the construction of additional block of health Centre at NIT, Kurukshetra	Funds are awaited.
		Item no. (8.13) The B&WC approved the RCE amounting to Rs.220 Lacs for the construction of 10 Nos. Professors Houses at NIT, Kurukshetra	Separate item attached vide item no. 11.7
		Item no. (8.14) The B&WC approved the RCE amounting to Rs.167 Lacs for the construction of 10 Nos. Assistant Professors Houses at NIT, Kurukshetra	Separate item attached vide item no. 11.8
		Item no. (8.17) The B&WC approved the RCE amounting to Rs.186.22 Lacs for the	Funds are awaited.

		construction of 24 Nos. E-Type houses at NIT, Kurukshetra.	
		Item no.(8.18) The B&WC approved the RCE amounting to Rs.111.70 Lacs for the construction of 20 Nos. F-Type houses at NIT, KKR	Funds are awaited.
		Item no. (8.19) The B&WC approved the RCE amounting to Rs.6.74 Lacs for the construction of New Boundary Wall around the lawn of Director's residence at NIT, Kurukshetra.	Funds are awaited.
		Item no. (9.4)The building & Works committee approved the cost estimate amounting to Rs. 299.09 Lacs for construction of MBA & MCA Block – A two story framed structure building at NIT, Kurukshetra.	Work in progress Separate item attached vide item no.11.9
		Item no. (9.5)The building & Works committee approved the cost estimate for amounting to Rs. 37.50 Lacs for construction of additional Block for central workshop at NIT, Kurukshetra.	Funds are yet to be allocated.
		Item no. (9.6)The building & Works committee approved the cost estimate for amounting to Rs. 92.66 Lacs for construction of additional Floor on the existing Examination Hall at NIT, Kurukshetra.	Funds are yet to be allocated.
		Item no.(9.9) The building & Works committee approved the cost estimate for amounting to Rs. 67.053 Lacs for replacement of A.C.C. sheets with Zinalume sheets & Renovation of water channel in central/old workshop at NIT, Kurukshetra.	Funds are yet to be allocated.
		Item no. (9.10) The building & Works committee approved the cost estimate for amounting to Rs. 1.75 Crore for replacement	Funds are yet to be allocated.

		of C.I./A.C water supply lines with Centrifugally Cast (Spun) Iron Pipes Class L.A./D.I. in the Residences, Hostels & Instructional Buildings at NITK.	
		Item no. (9.11) The building & Works committee approved the cost estimate for amounting to Rs. 78.75 Lacs for Providing Distempering instead of white-washing in various Residencies at NIT, Kurukshetra.	Funds are yet to be allocated.
		Item No.(2.25, 6.3 & 9.12 )The building & Works committee approved the Revised cost estimate for amounting to Rs.659.06 Lacs for the construction of Administrative Block at NIT, Kurukshetra.	Work allotted to C.P.W.D & work is in progress.
10.3	To consider & approve RCE for the provision of Glazed tiles in the Hostels, Residences (Toilets & Kitchens) and Instructional Buildings.	Item no. (10.3) The B&WC approved revised cost estimate for Rs. 110.97 Lacs for provision of glazed tiles in hostel, Guest House, residences & instructional Buildings	Work in 5 Nos Boys hostel & instructional buildings completed & remaining to be carried out. Funds are awaited.
10.4	To consider & approve revised cost estimate for the Construction of swimming pool at NIT, Kurukshetra.	Item no. (10.4) The B&WC approved revised cost estimate amounting to Rs. 396.76 Lacs for the construction swimming pool.	Work allotted to CPWD & work in progress.
10.5	To consider and approve the Revised Cost Estimate for the provision of Stores in G-type houses at NIT, Kurukshetra.	Item no. (10.5) The B&WC approved the revised cost estimate amounting to Rs. 74.98 Lacs for stores in G-type Houses.	Work in progress
10.6	To consider and approve the Revised Cost Estimate for the construction of 12 numbers Lecturer Hall at NIT, Kurukshetra	Item no. (10.6)The B&WC approved the revised cost estimate amounting to Rs. 520.33 Lac for the construction of 12 No. Lecture Hall. at NITK.	Work is in progress
10.7	To consider & approve the Revised cost estimate for the construction of additional Girls Hostel (300 Capacity)at NIT, Kurukshetra.	Item no. (10.7) The B&WC approved the revised cost estimate amounting toRs. 948.35 Lac for the construction of Additional Girl Hostel.	Work is in progress
10.8	To consider & approve the Revised Cost Estimate for the construction of New PG Hostel of 350 seaters Capacity at N.I.T, Kurukshetra.	Item no. (10.8) The B&WC approved the revised cost estimate amounting to Rs. 1204.73 Lac for construction of New P.G. Hostel of 350 seaters-capacity.	Work completed

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10.9	To consider and approve cost estimate for the extension of existing road between Tubewell No. 5 and Students Activity Centre upto 350 Seaters Boys Hostel at National Institute of Technology, Kurukshetra	Item no. (10.9) The B&WC approved the revised cost estimate amount for Rs. 43.54 Lac for the extension of existing road between Tube well No.-5 and student activity center upto of 350 seaters boys hostel.	Work completed
10.10	To consider and approve cost estimate for the special repair, renovation and miscellaneous works at National Institute of Technology, Kurukshetra	Item no.(10.10) The B&WC approved the revised cost estimate amount for Rs. 100.00 Lac the special repair, renovation and miscellaneous works at National Institute of Technology, Kurukshetra	Funds are awaited
10.11	To consider & approve the Revised Cost Estimate for the construction of 350 Seaters Boys Hostel for Under-Graduate Students at NIT Kurukshetra.	Item no.(10.11) The B&WC approved the revised cost estimate amounting to Rs. 15.42 Crore for the construction of 350 Seaters Boys Hostel for Under-Graduate Students at NIT Kurukshetra.	Work completed
10.12	To consider and approve the cost estimate for providing & fixing of Wash Basin & Looking Glass alongwith necessary accessories in G-Type Houses at NIT Kurukshetra.	Item no. (10.12) The B&WC approved the revised cost estimate amount for Rs. 7.03 Lac for providing & fixing of Wash Basin & Looking Glass alongwith necessary accessories in G-Type Houses at NIT Kurukshetra.	Work completed
10.13	To consider & approve the Revised Cost Estimate for providing & installation of 2 Nos. Tubewells in NIT, Kurukshetra.	Item no. (10.13) The B&WC approved the revised cost estimate amounting to Rs. 35.50 Lac for providing & installation of 2 Nos. Tubewells in NIT, Kurukshetra.	Work completed
10.14	To consider and approve the Revised Cost Estimate for the construction of 350 Seaters Boys Hostel at N.I.T, Kurukshetra	Item no. (9.14 & 10.14) The B&WC in 9 <sup>th</sup> meeting held on 17.03.08 approved the revised cost estimate amounting to Rs. 12.50 Crore for the construction of 350 Seaters Boys Hostel at N.I.T, Kurukshetra.	Work completed
10.15	To consider and approve the Cost Estimate for the replacement of existing normal light fittings with energy efficient (T-5) type lighting fittings.	Item no. (10.15) The B&WC approved the cost estimate amounting to Rs. 43.09 Lac for the replacement of existing normal light fittings with energy efficient (T-5) type lighting fittings.	Funds are awaited
10.16	(i). Cost-- Estimate For Provision Of Approach Road & Gates in CA-3, CA-5, CA-6 & BB-5 Houses at NIT, Kurukshetra.	Item no. (10.16)(i) The B&WC approved the cost estimate amount for Rs. 9.54 Lac for Provision of Approach Road & Gates in CA-3, CA-5, CA-6 & BB-5 Houses at	Funds are awaited

	<p>(ii). Cost Estimate For Replacement of Garage Rolling Shutters with openable Iron Gates For BB-1 to BB-8, BC-1 to BC-4 &amp; BC-6, BA-1 to BA-4 &amp; BA-6 and CA-9 Houses at NIT, Kurukshetra.</p> <p>(iii). Cost Estimate for the provision Of Garages with openable Iron Gate and approach road for AD-5 &amp; AD-6 Houses at NIT, Kurukshetra.</p>	<p>NIT, Kurukshetra.</p> <p>(ii). Cost Estimate For Replacement of Garage Rolling Shutters with openable Iron Gates For BB-1 to BB-8, BC-1 to BC-4 &amp; BC-6, BA-1 to BA-4 &amp; BA-6 and CA-9 Houses at NIT, Kurukshetra.</p> <p>(iii). Cost Estimate for the provision of Garages with openable Iron Gate and approach road for AD-5 &amp; AD-6 Houses at NIT, Kurukshetra.</p>	
10.17	To consider and approve the Cost Estimate for the provision of stores in DA Type Houses (DA-10 to DA-15) at NIT, Kurukshetra.	Item no.(10.17) The B&WC approved the cost estimate amount for Rs. 7.63 Lac for provision of stores in DA Type Houses (DA-10 to DA-15) at NIT, Kurukshetra.	Funds are awaited
10.18	To consider & Approve the Cost estimate for providing premix carpeting with 'B' Type seal Coat on various existing roads in the Institute at NIT, Kurukshetra.	Item no. (10.18) The B&WC approved the cost estimate amounting to Rs. 39.90 Lac for providing premix carpeting with 'B' Type seal Coat on various existing roads in the Institute at NIT, Kurukshetra.	Funds are awaited
10.19	To consider & approve cost estimate for renovation in the existing four room Nos. HP-101, HP-102, HP-103 & HP-106, Refrigeration A/C & Heat Transfer Lab & conversion of existing Drawing Hall M-106 into two Labs in the Mechanical Engg. Department of the Institute	Item no. (10.19) The B&WC approved the cost estimate amounting to Rs. 6.03 Lac for renovation in the existing four room Nos. HP-101, HP-102, HP-103 & HP-106, Refrigeration A/C & Heat Transfer Lab & conversion of existing Drawing Hall M-106 into two Labs in the Mechanical Engg. Department of the Institute	Funds are awaited

- Item No.11.3      To consider & approve revised cost estimate for
- (i) providing & Installation of Electrical Sub-station HT/LT Distribution i/c street lighting & feeder pillars etc. non residential Area at NIT, Kurukshetra.
  - (ii) providing & Installation of Electrical Sub-station HT/LT Distribution and fiddler pillars in residential area at NIT, Kurukshetra.

The B&WC Committee vide item no. (2.41), (4.17) & (9.13) approved the RCE amounting to Rs. 5.82 crore for installation of HT/LT substation in NIT, Kurukshetra. The work was allotted to CPWD for the installation of HT/LT substation after the detail discussion with CPWD the revised preliminary cost estimate has been submitted by the CPWD, vide letter no. F.No. 42(5)(4)EE(E) P-I/CE(E) NR/2009-10/627 dated 21.05.09 under the above mentioned heads i.e Non residential area and residential area. The estimate for the non residential area amounting to Rs. 57869147/- and Rs. 22269434/- for residential area has been received from the consultant M/s V.S Kukreja (engaged by NIT, Kurukshetra) through Superintending Engineer (Electrical), Chandigarh Central Electrical Circle, CPWD.

In view the above it is proposed that B&WC may consider and approve the revised cost estimate amounting to Rs.80138581/- for the installation of HT/LT substation in the Institute.

3434 26/12/09

Government of India

Office of the Chief Engineer (E) NR,  
CPWD, East Block-I, Level-V, Ram Krishna Puram,  
New Delhi-110066 Fax No. 26101469 Off No. 26182195  
E-mail I.D:- [ceenrcepwd@rediffmail.com](mailto:ceenrcepwd@rediffmail.com)

3434 26/12/09

F.No.42(5)(4) EE(E)P-I/CE(E)NR/2009-10/627

ADP-2 to process  
The case 2/1/09  
Chopra

Dated: 21/12/09

To,

The Director,  
National Institute of Technology,  
Kurukshetra (Haryana)

Sub:- Preliminary Estimates for the works :-

- a) Edg & Installation of Electrical Sub- Station, H.T/L.T Distribution i/c street lighting & feeder pillars etc. in non Residential Area at NIT Kurukshetra
- b) Edg & Installation of Electrical Sub-Station HT/LT Distribution and feeder pillars etc. in residential Area at NIT Kurukshetra

Please find enclosed herewith two nos Preliminary Estimates (in duplicate) amounting to Rs. 5,78,69,147/- only (for non Residential Area) & Rs. 2,22,69,434/- only (For Residential Area) for the subject works as received from the consultant M/s V.S. Kukreja (engaged by the NIT Kurukshetra) through Superintending Engineer(E) Chandigarh Central Electrical Circle, CPWD, Chandigarh for record of Administrative Approval & Expenditure Sanction of the competent authority. The Head of A/c to which the expenditure is charged may also please be intimated.

Please note that the aforesaid works shall be taken up only after receipt of A/A & F/S

This issue with the approval of CE(E)NR.

- Encls:- 1- P.E. for Non Residential Portion (in duplicate)  
2- P.E. for Residential Portion (in duplicate)

Superintending Engineer (E) F&A

Copy to:- SE(E)CCEC- CPWD Chandigarh with reference to his letter no. 2/1/09/CPWD/217 dt. 30.04.09

Superintending Engineer (E) F&A

GOVT. OF INDIA  
CENTRAL PUBLIC WORKS DEPARTMENT

State Haryana  
Branch : E&M

Circle: C.C.E.C.  
Division: K.C.E.D.

Name of work:- Providing & Installation of Electric Sub-Station, HT/LT Distribution i/c street Lighting and Feeder Pillars etc in Non-residential Area at N.I.T. Kurkshetra.

This preliminary estimate has been framed by Er. M.L. Baggan, Executive Engineer (E), Karnal Central Electrical Division, CPWD, Karnal and processed in the office of Superintending Engineer (E), Chandigarh Central Electrical Circle, CPWD, Chandigarh for the probable cost of Rs.5,78,69,147/- including 3% contingencies.

REPORT

**History:-** This preliminary estimate has been prepared to cover the probable cost of Rs.5,78,69,147/- including 3% contingencies for providing and installation of Sub-Station Equipments, HT/LT Distribution, Street Lighting in the campus and feeder pillars etc. complete as required for obtaining A/A & E/S from the competent authority. The requisition of the client has been received vide No.EM/3701/NITK/12508/1386 dated 23.2.2009 (photocopy enclosed). The work is proposed to be taken up as per the schematic design of LOP enclosed.

**Design & Scope:-**

**Non Residential Area:** In this area, it is proposed to receive the 11 KV supply from H.S.E.B. on 11 KV Feeder Line through one No. GO switches (for non-residential area) shall be received in metering panels of non-residential areas.

Three Nos. Sub-stations are proposed for non-residential area. Each Sub-Station having transformer of capacity 800 KVA, 1000 KVA and 1250 KVA for Non-Resid. area. Each Sub-Station are interlinked with each other. Accordingly, VCB's are taken. There is no provision of standby transformer kept in this estimate. However, one room for standby transformer shall be constructed. Street lighting has been proposed with SP-45 pole of 9 Mtrs. Height with 250 Watt HPSV fitting along the boundary lines and SP-45 poles of 9 Mtrs height Poles with 150 Watt HPSV fittings on main road and 9 Mtrs height poles with 70 Watt HPSV fitting are proposed in internal roads. Feeder Pillars of adequate capacities are kept in this P.E. for catering the load to the building.

The cost of Sub-Station is also included in this P.E. The tentative cost of construction of Sub-Station Buildings at different locations and metering room to be constructed for termination of 11 KV-HT supply of H.S.E.B. is approximately Rs.62,512 Lacs which is taken in to the account. The apprx. Area of the building is 525 Sq. Mtrs.



Method: Through Call of Tenders.

Rate: Current Market Rates NSR items and SR (Internal) 2007/ (External) 2007 for schedule items.

Cost: Rs.5,78,69,147/- including civil works and 3% contingencies.

Time: 12 Months.

Assistant Engineer (E)P  
Chandigarh Cent. Elect. Circle  
CPWD, Chandigarh.

Executive Engineer (E)P  
Chandigarh Cent. Elect. Circle  
CPWD, Chandigarh.

Superintending Engineer (E)  
Chandigarh Cent. Elect. Circle  
CPWD, Chandigarh.

**GOVT. OF INDIA**  
**CENTRAL PUBLIC WORKS DEPARTMENT**

State Haryana  
Branch : E&M

Circle: C.C.E.C.  
Division: K.C.E.D.

Name of work:- Providing & Installation of Electric Sub-Station, HT/LT Distribution and Feeder Pillars etc in Residential Area at N.I.T. Kurkshetra.

This preliminary estimate has been framed by Mr. M.J. Bagga, Executive Engineer (E), Karnal Central Electrical Division, CPWD, Karnal and processed in the office of Superintending Engineer (E), Chandigarh Central Electrical Circle, CPWD, Chandigarh for the probable cost of Rs.2,22,69,434/- including 3% contingencies.

**REPORT**

**History:-** This preliminary estimate has been prepared to cover the probable cost of Rs. 2,22,69,434/- including 3% contingencies for providing and installation of Sub-Station Equipments, HT/LT Distribution and Feeder Pillars etc in the campus complete as required for obtaining A/A & E/S from the competent authority. The requisition of the client has been received vide No.EM/3701/NITK/12508/1386 dated 23.2.2009 (photocopy enclosed). The work is proposed to be taken up as per the schematic design of LOP enclosed.

**Design & Scope:-**

In residential area, 11 KV Supply will be received in metering panel through GO switch and HT Cables, 2 Nos. Sub-Stations are proposed in this area. One Sub-Station will be with 2 x 1000 KVA Transformer and HT Panels. Other Sub-Station shall be with 1 x 400 KVA Transformer and HT Panels. Feeder Pillars of different capacity shall be fed from Sub-Station and shall cater the load to residential Qtrs. Interlinking is proposed to each Sub-Station. No standby transformer is proposed. However, room for standby transformer shall be kept spare for future execution. It is proposed to provide static energy meters of different capacity each Qtr. The cost of Sub-Station building is also included in this P.E. The tentative cost of construction of Sub-Station Buildings at different locations and metering room to be constructed per termination of 11 KV HT supply of H.S.F.B. is approximately Rs.33,774 Lacs which is taken in to the account. The appx area to be constructed for Sub-Station is 300 Sq. Mtrs.

Method: Through Call of Tenders.  
Rate: NSR 2008 (Electrical) for NSR items and SE (Internal) 2007 (External) 2007 for schedule items and Market Rates.  
Cost: Rs.2,22,69,434/- including civil works and 3% contingencies.  
Time: 12 Months.

Assistant Engineer (E/P)  
Chandigarh Cent. Elect. Circle  
CPWD, Chandigarh.

Executive Engineer (E/P)  
Chandigarh Cent. Elect. Circle  
CPWD, Chandigarh.

Superintending Engineer (E)  
Chandigarh Cent. Elect. Circle  
CPWD, Chandigarh.

Dist. Street Lighting Kurkshetra

**Item No.11.4      To consider & approve cost estimate for provision of Geysers and Exhaust Fans in Hostel Toilets NIT, Kurukshetra.**

The B &WC vide item no.2.40 approved the rough cost estimate of Rs. 8.00 lac for the provision of electric geysers, exhaust fans in the hostels & toilets, In the 7<sup>th</sup> BWC meeting, it was decided that Institute may opt. solar heaters instead of electric geysers and advantage of Govt. subsidy on solar system may be taken for the purpose. During 10<sup>th</sup> BWC meeting it was suggested that four & more then four years old electric geysers in the existing hostels may be replaced with solar heating system and solar heating system may be provided in the new hostels in future. As per instructions of Govt. of India, Govt. of Haryana has also made mandatory to install solar water heaters in all the Govt. building as per solar energy act 2001.

The B&WC is requested to consider & approve the rough cost estimate amounting to Rs.280 Lac for the above work.

**Item: Installation of Solar water heater in the hostels.**

The BWC vide item No. 2.40 approved the rough cost estimate of Rs. 8.00 lacs for the provision of electric geysers, exhaust fans in the hotels & in the 7<sup>th</sup> BWC meeting, it was decided that Institute may opt. solar heaters instead of electric geysers and advantage of Govt. subsidy on solar system may be taken for the purpose. During 10<sup>th</sup> BWC it was suggested that four & more then four years old electric geysers in the existing hostels may be replaced with solar heating system and solar heating system may be provided in the new hostels in future. As per instructions of Govt. of India, Govt. of Haryana has also made mandatory to install solar water heaters in all the Govt. building as per solar energy act 2001.

The Institute has 09 Nos. boys hostels having total capacity of around 2500 and 03 girls hostels having capacity of 600. The capacity of solar water heating system required in the hostels is as under:-

Boys	2500x40LPD =	1,00,000 LPD
Girls	600x60LPD =	<u>36,000 LPD</u>
		1,36,000 LPD

Cost /LPD = Rs. 200/-

Rough estimated cost Rs. 2,72,00,000/- i.e. 272.00 lacs

Contingency 3%

8.16 lacs  
Total Rs. 280.16 lacs

**Say 280.00 lacs**

The BWC may consider & approve the item.

BWC

*Item*

*16/7*

E/O

*Prof. C. S.*

*16/7/07*

*2/7/09*

Government of India  
Directorate General of Supplies & Disposals  
Jeevan Tara Building, Parliament Street  
New Delhi-110001

Amendment No. SWHS/IT-2/RC-D3060000/0310/82/03609/0631/24291  
Dated 21-05-2009  
Effective Date 21-MAY-09

1706

To

M/S EMMVEE SOLAR SYSTEM PVT. LTD  
No.55, SOLAR TOWER, 6th Main, 11th Cross, Lakshmaiah Block, Ganganagar  
Bangalore  
KARNATAKA-560024.

Sub : This office R/C No. SWHS/IT-2/RC-D3060000/0310/82/03609/0631  
Dated 24-APR-09 for the Supply of Solar Water Heating System.

Ref : Your Letter No. ESSPL/DGS&D/CO-2/2009-10 Dated 10-MAY-09.

Dear Sir,

The following amendments to the schedule to subject rate contract  
in terms of rate are hereby authorised:-

UNDER SCHEDULE-A

Item: Solar Water Heating System with heat exchanger Type 1 for cold  
region.

Item Description	NOS.	Revised Rate
1 Rated capacity in litres per day (LPD): 100, Min. aperture area of collector (sq. mtrs): 2, Electrical heater back up (KW): 2, Capacity of make up tank (ltrs.): 5		Ra. 26306 Rs. TWENTY-SIX THOUSAND THREE HUNDRED SIX ONLY

Item: Solar Water Heating System with heat exchanger Type 1 for cold  
region.

Item Description	NOS.	Revised Rate
2 Rated capacity in litres per day (LPD): 200, Min. aperture area of collector (sq. mtrs): 4, Electrical heater back up (KW): 3, Capacity of make up tank (ltrs.): 5		Rs. 44033 Rs. FORTY-FOUR THOUSAND THIRTY- THREE ONLY

Item: Solar Water Heating System with heat exchanger Type 1 for cold  
region.

Item Description	NOS.	Revised Rate
3 Rated capacity in litres per day (LPD): 300, Min. aperture area of collector (sq. mtrs): 6, Electrical heater back up (KW): 4, Capacity of make up tank (ltrs.): 5		Rs. 61127 Rs. SIXTY-ONE THOUSAND ONE HUNDRED TWENTY- SEVEN ONLY

Item: Solar Water Heating System with heat exchanger Type 1 for cold  
region.

Item Description	NOS.	Revised Rate
4 Rated capacity in litres per day (LPD): 500, Min. aperture area of collector (sq. mtrs): 10, Electrical heater back up (KW): 6, Capacity of make up tank (ltrs.): 5		Rs. 91420 Rs. NINETY-ONE THOUSAND FOUR HUNDRED TWENTY ONLY

Rs/LPD = 91420 / 182.84 pps

**Item No.11.5      To consider & approve revised cost estimate for the construction of grading seating arrangement for 2000 persons in Open Air-theatre at NIT, Kurukshetra.**

The B & WC in it's 6<sup>th</sup> meeting held on 24.04.06 (vide item 6.15) approved a cost estimate for Rs. 49.29 Lac for the construction & provision of open Air-theatre in NIT Kurukshetra.

The open Air theatre in the Institute will extensively be used by the students for holding various big functions.

Now, on our requirement C.P.W.D submitted a cost estimate amounting to Rs. 440 Lac. for the provision of Graded seating arrangement for 2000 persons in open Air theatre. However, the fresh drawings duly approved by the Committee of Institute with major modifications were again submitted to C.P.W.D.

The B & WC is requested to consider & approve the revised cost estimate amounting to Rs. 440.00 Lac for the construction of grading seating arrangement for 2000 persons in open Air theatre.

GOVT. OF INDIA  
CENTRAL PUBLIC WORKS DEPARTMENT

STATE:- HARYANA

DIVISION:- KARNAL CENTRAL

BRANCH:- B&R

Name of work:- C/o Open air theatre for 2000 persons with seating arrangement at NIT Kurukshetra.

Major Head	Minor Head	Detailed Head
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The Preliminary Estimate framed by Er. D.S. Sangwan, Executive Engineer, Karnal Central Division, CPWD, Karnal and further processed by Er. P.L.S. Chahap, Executive Engineer (P&I), C/CE(NZ-I), CPWD, Chandigarh of the probable cost of Rs. 4,40,35,600/- including 3% contingencies.

### REPORT

**HISTORY:-** The Preliminary Estimate amounting to Rs. 4,40,35,600/- including 3% contingencies has been framed to cover the probable cost of above said work and for record of A/S & E/S by the competent authority. The requisition for the work has been received from professor in charge IIT vide letter No. EO/3498 dated 04.05.2007. Hence this estimate.

**DESIGN & SCOPE:** The estimate provides for Construction of Open Air Theatre with RCC structural structure from level 450 mm to 8000 mm in steps with provision of car parking, stores, cafeteria and toilets based on Architectural Drawings No. SACHZY/1336/OAT/1 to 4. Provision for internal water supply, sanitary installations and external service connections has also been made. The entire open area shall be developed partly with CC pavement and partly green area as per layout. Provision has also been made for electrical installations and electrical development works alongwith provision for horticulture works. No provision for stage and green rooms has been made as there exists no site of same as discussed with the client department.

**Specification:-** The work shall be carried out as per CPWD specification 1996 Vol. I to III with upto date correction slips.

**Rate:-** Based on FAR 2007 & DSR 2007 duly enhanced with approved cost index.

**Amount:-** Rs. 4,40,35,600/- i/c 3% contingencies.

**W.C. Estt:-** Shall be met out from contingencies.

**T & F:-** Shall be arranged by the contractor

**Land:-** Available with client deptt.

**Method:-** By contract after call of tender.

<b>Time:-</b>	a) Pre-construction activities	23 Months
	b) For Execution of work	12 Months
	<b>Total</b>	35 Months

Assistant Engineer(P)  
CPWD, Chandigarh

Executive Engineer(P)  
CPWD, Chandigarh

# GENERAL ABSTRACT OF COST

Name of work:- C/o Open air theatre for 2000 persons with seating arrangement  
MIT, Kurukshetra.

Sl. No.	Description of item	Civil	Electrical	Horticulture	Total	Remarks
1	Building work	30610575.00	5950002.00	---	36560577.00	Annexure A
2	Development Work	---	5350000.00	454573.00	5350000.00	Annexure B
Total					41910577.00	
Add 1% for Quality Assurance					419106.00	
					42329683.00	
Add 1% cess					423296.00	
					42752979.00	
Add 3% contingencies					1282589.00	
Grand Total					44035568.00	
Say Rs.					4,40,35,568.00	

Assistant Engineer (P)  
CPWD, Chandigarh.

Executive Engineer (P-II)  
CPWD, Chandigarh.

Sup. Control & Insp. Engrg.  
CPWD, Chandigarh.

Preliminary estimate amounting to Rs. 4,40,35,600/- (Rs Four Crore Forty Lacs Thirty Five Thousand and Six Hundred only) is hereby forwarded for accord of A/A & E/S of the competent authority.

Chief Engineer (PZ-I)  
CPWD, Chandigarh.



**Item No.-11.6      To Consider & Approve cost estimate for the Construction of Extension of Guest House at NIT, Kurukshetra.**

In the 8<sup>th</sup> meeting of B&WC held on 28.05.07, (vide item no. 8.10) approved the rough cost estimate for Rs. 67.4 lac for the construction of additional accommodation of Faculty Guest House at NIT, Kurukshetra.

The revised cost estimate was prepared by this office amounting to Rs. 160.61 lac. The tenders were invited on 29.05.09 & after obtaining prior approval of the Chairman B&WC in anticipation approval of Building & Works Committee, three tenders were received. After scrutinizing & preparing comparative statement, the work was allotted to the lowest Tenderer M/s Kuldeep Kumar Contractor, Kurukshetra with an estimated cost of Rs. 181.27 lac on 15.06.09.

It is therefore, requested that B&WC may consider & accord approval for Rs. 181.27 lac for this work.

# Financial/Comparative Statement for Construction of Extension of Guest House Building at NIT, Kurukshetra .

Rate Quoted by the agencies

Sr. No.	Description	Estimated Cost (HSR+CP)	Kuldeep Kr. Contractor-KKR		Ashish Kumar Contractor-KKR		Sarthak Contracts P.Ltd-Jaipur	
			Premium	Amount (Rs.)	Premium	Amount (Rs.)	Premium	Amount (Rs.)
1	Total Amount of Civil Schedule Items	9,367,045.38	(HSR+CP)+19% on all HSR items	11,146,784.00	(HSR+CP)+35.7% on (CH-18), (HSR+CP)+20.40% on (Ch. 11), On All other items (HSR+CP)+9.6%	11,243,108.93	(HSR+CP)+26% on All HSR Items & on 18.22 26.50%	11,816,508.04
2	Total Amount of Public Health Schedule Items	1,705,891.69	(HSR+CP)+11% on all HSR items	1,893,539.77	(HSR+CP)+10% on all HSR items	1,876,480.85	(HSR+CP)+26% on All HSR Items	2,149,423.52
3	Total Amount of Electrical Schedule Items	1,076,565.70	(HSR+CP)+11% on all HSR items	1,194,987.93	Diff. Rates	1,279,391.06	(HSR+CP)+26% on All HSR Items	1,356,472.78
1	Total Amount of Civil N.S Items	2,454,359.50		2,173,925.00		2,525,520.00		3,770,995.00
2	Total Amount of Public Health N.S Items	514,940.00		454,200.00		550,600.00		584,400.00
3	Total Amount of Electrical N.S Items	901,942.00		1,263,740.00		885,675.00		1,098,650.00
	<b>TOTAL</b>	<b>16,020,744.27</b>		<b>18,127,176.70</b>		<b>18,360,775.84</b>		<b>20,776,449.35</b>

Say Rs.

16,020,744.00

18,127,177.00

18,360,776.00

20,776,449.00

Excess over Estimated Cost Rs.

2,106,433.00

2,340,032.00

4,755,705.00

Excess Percentage on Estimated Cost

13.15 %

14.61 %

29.68 %

Submitted please:

Only three tenders were received on 29-05-2009 for the above work, one from M/s Kuldeep Kr-KKR, 2nd from M/s Ashish Kr.-KKR, 3rd from M/s Sarthak Contracts P.Ltd-Jaipur.

As per financial/ comparative statement prepared by this office, the rates quoted by M/s Kuldeep Kr-KKR are the lowest rates with a cost of Rs. 1,81,27,177.00. The rates of M/s Kuldeep Kr-KKR. when compared with the estimated cost of the work, gives an excess of Rs. 21,06,433.00 i.e. Rs.1,60,20,744.00 (-) 1,81,27,177.00 Rs. = (-) Rs. 21,06,433.00 or 13.15%. The rate seems to be reasonable. May if approved, allot the work to the lowest agency i.e M/s Kuldeep Kr. contractor-KKR

-----Sd-----

EXECUTIVE ENGINEER

Construction Cell

NIT-Kurukshetra

**Name of work: - Extension of Guest House Building at NIT, Kurukshetra.**  
(BASED ON HSR-1988 & LATEST SANCTIONED PREMIUM W.E.F. 01-02-2009)

Sl. No.	Description	Qty.	Unit	Rate (in Rs.)	C.P.	Total Rate (Rs.)	Amount (in Rs.)	Ref. HSR No.
	<b>SUB PART-I: INTERNAL CIVIL WORKS (SCHEDULE ITEMS)</b>							
1	Earth work in excavation in foundation, trenches etc. in all kind of soils, not exceeding 2 mtrs. depth including dressing of bottom and sides of trenches, stacking the excavated soil, clear from the edge of excavation and subsequent filling around masonry in 15 cm layers with compaction, including disposal of all surplus soil as directed within a lead of 30 mtrs.	460	100 Cum	1108.10	350%	4986.45	22937.67	6.6
2	Clearing grass and removal of the rubbish upto distance of 50m outside the periphery of the area cleared.	360	100 sqm	21.45	300%	85.80	308.88	6.27
3	Dismantling brick work, tile masonry or tile lining and tile terracing							
	b) In cement	100	Cum	35.60	450%	195.80	19580.00	8.5 (b)
4	Dismantling Concrete.							
	(e) Reinforced cement concrete with cleaning and straightening and cutting of bars if required.	100	Cum	108.05	450%	-594.28	59427.50	8.6(e)
5	Dismantling roofing							
	(G) Demolishing mud phaska in tile terracing	80	Cum	12.45	450%	68.48	5478.00	8.8(g)
6	Scraping							
	(a) White wash and colour wash	1000	Sqm	0.45	450%	2.48	2475.00	8.32(a)
7	Cement concrete 1:4:8 with stone aggregate 40mm nominal size in foundation and plinth (upto 1.5m depth)							10.39
	For Foundation	31	Cum	403.10	340%	1773.64	54982.84	
8	Cement concrete 1:4:8 with stone aggregate 20 mm nominal size in first storey upto 4 metres above plinth level.	35	Cum	426.25	340%	1875.50	65642.50	10.56
9	Cement concrete 1:2:4 with stone aggregate 20 mm nominal size in first storey upto 4 metres above plinth level.	10	Cum	621.85	340%	2736.14	27361.40	10.59
10	Cement concrete 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work in footings, strips, foundations, beams, rafts, pedestal and approach slabs of bridges etc. excluding steel reinforcement but including centering and shuttering laid in position complete in all respects (for works upto 1.5m below grounds level)	110	Cum	774.00	340%	3405.60	374616.00	10.90 + 10.95 (

11	Cement concrete - 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work for walls exceeding 20cm thickness (straight and curved) beams, girders, stairs, columns (square or rectangular) battens and lintels etc. excluding steel reinforcement but including centering and shuttering laid in position, complete in all respects.							
	-do- (first storey)	80	Cum	1188.75	340%	5230.50	418440.00	10.86+ 10.95 (a)
b	-do- (second storey)	145	Cum	1196.05	340%	5262.62	763079.90	10.86+ 10.95 (a)+ note(v)(b)
c	-do- (third storey)	5	Cum	1203.35	340%	5294.74	26473.70	10.86+ 10.95 (a)+ note(v)(b)
12	Cement concrete 1:1.5:3 with stone aggregate 20mm nominal size for reinforced concrete work in slab with inclination not exceeding 25 degree with horizontal, excluding steel reinforcement but including centering and shuttering laid in position complete in all respects.							10.82 + 10.95 (e)
a	-do- (first storey)	50	Cum	1084.80	340%	4773.12	238656.00	10.82 + 10.95 (a)+note(v)(b)
	-do- (second storey)	105	Cum	1092.10	340%	4805.24	504550.20	10.82 + 10.95 (a)+note(v)(b)
	-do- (third storey)	8	Cum	1099.40	340%	4837.36	38698.88	10.82 + 10.95 (a)+note(v)(b)
	Cold twisted deformed (ribbed/tor steel) bars for R.C.C. works where not included in the complete rate of R.C.C. including bending, binding and placing in position complete.	680	Qtl	917.05	350%	4126.73	2806173.00	18.22
14	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in pavements, roads, taxi tracks and runways, laid to required slope and camber, including consolidation, finishing, and tamping complete.	25	Cum	642.4	340%	2826.56	70664.00	10.132
15	Damp proof course 40mm thick of cement concrete 1:2:4 using stone aggregate 20mm nominal size with 2 coats of bitumen 20/30 penetration at 1.65kg per sqm. laid hot and sanded.	30	Sqm	35.05	340%	154.22	4626.60	10.114
	First class brickwork laid in cement sand mortar 1:6 in foundation and plinth.	53	Cum	393.45	400%	1967.25	104264.25	11.2

17	First class brickwork laid in cement sand mortar 1:6 in first storey upto 4 meter above plinth level.							11.7
a	-do- (first storey)	70	Cum	414.45	400%	2072.25	145057.50	
b	-do- (second storey)	210	Cum	422.70	400%	2113.50	443835.00	11.7+11.41 (i)
c	-do- (third storey)	17	Cum	430.95	400%	1939.28	17065.66	11.7+11.41 (i)
18	First class brickwork laid in cement sand mortar 1:4 in first storey upto 4 meter above plinth level.							11.9
a	-do- (first storey)	20	cum	414.45	400%	2072.25	41445.00	
b	-do- (second storey)	50	Cum	466.25	400%	2331.25	116562.50	11.9+11.41 (i)+11.42
c	-do- (third storey)	7	Cum	474.50	400%	1939.28	17065.66	11.9+11.41(i)+.42
19	11.43 cm thick brick wall laid in cement sand mortar 1:4 in superstructure in first storey							11.48 (a)
a	-do- (first storey)	80	Sqm	55.10	400%	275.50	22040.00	
b	-do- (second storey)	530	Sqm	56.05	400%	280.25	148532.50	11.48 (a) + no: (iv)(a)
20	Terracing consisting of tiles 22.86x11.43x3.81cm laid over 87.50mm mud filling on a layer of 25mm mud plaster and another layer of mud mortar for laying the tiles.							13.13+note
	ind storey	800	Sqm	53.90	400%	269.50	215600.00	
21	Providing and embedding 100mm dia H.C.I rain water without ears ISI mark pipe in cement mortar during masonry work..							13.43
	100mm diameter pipe	50	Mtr.	93.35	350%	420.08	21003.75	
22	Extra over rate of item No.13.43 and 13.45 (a) in case lead joints are used instead of cement joints							13.46 (a)
	100 mm diameter pipe	125	Each	24.30	350%	109.35	13668.75	
23	Providing & fixing CI plain bends in position with gutter etc.							13.49
	For 100mm diameter pipe	6	Each	57.45	350%	258.53	1551.15	(a)
24	Top Khurra 0.6 m x 0.6 m for rain water pipe in 25mm thick cement concrete 1:2:4 over 50mm thick cement concrete 1:8:16.	20	Each	12.30	200%	36.90	738.00	13.50
25	Sand filling under floor i/c laying consolidation, compaction & watering etc.	150	Cum	69.30	340%	304.92	45738.00	14.1-10.26 - Based derived rate
26	Cement concrete 1:2:4 gola 10cmx10cm quadrant along junction of roof with parapet wall finished smooth where specially specified.	170	Mtr.	5.35	200%	16.05	2728.50	13.64

27	Providing and lying cinder concrete in cement 1:15, 1cement and 15 cinder, on terraced roofs and 1st storey, laid to slope, including consolidating the same.							
	-do- (second storey)	70	Cum	216.65	200%	649.95	45496.50	13.66
8	Base course of floors consisting of 100mm thick cement concrete 1:8:16 and 100mm sand or stone filling.	300	Sqm	36.95	340%	162.58	48774.00	14.1
9	screed of 50mm of thick cement concrete 1:8:16 to be laid below the topping.							
a	-do- (second storey)	600	Sqm	15.65	340%	68.86	41316.00	14.4
b	-do- (third storey)	10	Sqm	15.95	340%	70.18	701.80	
10	conglomerate floor 25mm thick cement concrete topping 1:2:4.							
a	-do- (first storey)	10	Sqm	22.40	340%	98.56	985.60	
b	-do- (second storey)	15	Sqm	22.70	340%	99.88	1498.20	14.8
31	Floating coat of 1.50mm thick neat cement laid in one operation to the topping.	15	Sqm	3.70	340%	16.28	244.20	14.3
2	12mm thick cement plaster 1:4 on wall							15.5
a	-do- (first storey)	300	Sqm	12.70	340%	55.88	16764.00	15.5+note 1
b	-do- (second storey)	1150	Sqm	12.88	340%	56.67	65172.80	15.5+note 1
c	-do- (third storey)	40	Sqm	13.06	340%	57.46	2298.56	15.5+note 1
33	15mm thick cement plaster 1:4 on the rough side of single or half brick							
a	-do- (first storey)	610	Sqm	15.65	340%	68.86	42004.60	15.10 +note (1)
b	-do- (second storey)	1210	Sqm	15.83	340%	69.65	84278.92	15.10 +note (1)
c	-do- (third storey)	80	Sqm	16.01	340%	70.44	5635.52	15.10 +note (1)
4	Rough cast exterior cement plaster on walls with a mixture of sand and gravel or crushed stone graded from 2.36mm to 12mm nominal size dashed over and including fresh plaster in 2 coat.							15.18
a	-do- (first storey)	860	Sqm	35.40	340%	155.76	133953.60	15.18 +note (1)
b	-do- (second storey)	850	Sqm	35.58	340%	156.55	133069.20	15.18 +note (1)
c	-do- (third storey)	120	Sqm	35.76	340%	157.34	18881.28	15.18 +note (1)
35	10 mm thick cement plaster 1:4 on underside of ceiling							15.52
a	-do- (first storey)	350	Sqm	12.65	340%	55.66	19481.00	15.52 + Note (1)
b	-do- (second storey)	600	Sqm	12.83	340%	56.45	33871.20	15.52 + Note (1)

c	-do- (third storey)	40	Sqm	13.01	340%	57.24	2289.76	15.52 + Note
6	20mm thick cement plaster damp proof course 1:3 with 2 coats of bitumen at 1.65 Kg. per laid hot and sanded:-							
	Vertical							15.77 (a)
a	- do - (second storey)	150	Sqm	30.88	340%	135.87	20380.80	
ii	Horizontal							15.77 (b)
a	- do - (second storey)	180	Sqm	29.13	340%	128.17	23070.96	
7	Teak wood wire gauze door and window shutters without spring housed in chowkets including chocks/cleats, iron hinges and screws etc.							17.38(a)
	30mm thick	200	Sqm	376.45	250%	1317.58	263515.00	
38	Providing and fixing six-levers brass 10cm mortice latch and lock, and a pair of lever handles with necessary screws, etc. complete (Indian make of reputed firm, such as Godrej or equivalent)	21	each	134.45	250%	369.74	7764.54	17.73
9	Supplying and fixing hydraulic door closer I.S.I. mark, with necessary screws, etc. Complete -							17.82
	I.S.I. designation No.III(size of door 851 mm to 1000 mm	37	Fach	216.50	250%	595.38	22029.06	(c)
40	Providing and fixing .50mm thick aluminium sheet i/c cost of necessary srews, etc. complete.	30	Sqm	90.55	250%	316.93	9507.75	17.87
41	Factory manufactured solid flush door shutters. With block board core as per I.S No. 1659-1669 bonded with wate proof typephenol formaldehyde synthetic resin, hotpressed, conforming to I.S 2202 part I and II fixed in position , including iron hinges, screws, chocks/ cleats and stops etc.( excluding the cost of any fitting other than specified above , but including labour for fixing the same position)-							17.93& 17.93 C)i&iv
(C)i	Decorative veneering with vertical grains or cross bands and face veneer on both sides teak facing and edges lipped with commercial hard wood with laminated core:-							
	25mm thick	70	Sqm	569.15	150%	1422.88	99601.25	
	40 mm thick	140	Sqm	642.15	150%	1605.38	224752.50	

42	Factory manufactured panelled door shutters, of teak wood, kiln-seasoned, as per I.S specification no.401, with 100mm wide vertical styles, 150mm wide lock rail, 200 mm wide bottom rail and 100mm wide other rails with panels of 12mm thick veneered, particle board, or plywood of BWR grade hot pressed including cost of iron hinges							17.94(b)ii
	Panel of decorative plywood, both side teak faced,							
ii	35mm thick	150	Sqm	831.15	250%	2909.03	436353.75	
	Wrought iron and mild steel (using angles, flats, square bars, tees and channels) ladders grills, grating frames, window guard iron doors openable of fixed staircase of parapet or any other type of railing, gates and tree guards etc. including cost of screws and welding rods or bolts and nuts complete fixed in position.	36	Qtl.	1040.35	325%	4421.49	159173.55	18.12
44	Providing and fixing G.I. sheet 0.80 mm thick garage doors, with 40mm x 40mm x 6mm angle iron frame with diagonal braces, 3mm thick gusset plates at the junctions, hooks at the top and 25 mm dia, pulleys, & T-iron 50 mm x 50mm x 6mm guides at bottom - including locking arrangements with handles and pintles, etc. complete.	2	Sqm	424.00	325%	1802.00	3604.00	18.16
	Providing and fixing in position collapsible steel shutters, with vertical channels 20 mm x 10 mm x 2mm and braced with flat iron diagonal 20 mm x 5 mm size, with top and bottom rails of T-iron 40 mm x 40 mm x 6 mm with 38 mm dia steel pulleys, complete with bolts, nuts, locking arrangements, stopers, handles, etc., complete.	2	Sqm	305.45	325%	1298.16	2596.32	18.20
46	S/F glass panes including special metal sash putty of approved make							18.30
	Glass panes 4mm thick, exceeding 40 sq.dm.area	150	Sqm	115.40	325%	490.45	73567.50	(b)
	Pressed steel sheet frames(Chowkats) consisting of 2mm thick steel sheet of the specified section, including iron lugs(hold fasts) iron hinges, conforming to PWD specifications, including bolts for fixing stops, locknotch, provision for receiving tower bolts. and finished with one coat of ready-mixed paint red lead non-stetting primmer, of approved quality, fixed in position including the frame, and cement concrete 1:3:6 for lugs complete:-							



(a)	Door and window frame of size 89 mm x 50mm with 40mm wide single rebate.	210	Mtr.	71.55	325%	304.09	63858.38	18.34(a)
( )	Door and window frame of size 127 mm x 50mm with 40 mmwide single rebate.	600	Mtr.	76.80	325%	326.40	195840.00	18.34©
47	Providing and fixing M.S.angle and T-iron frames for door, window and ventilator including iron hold fast, butt hinges of I.S.I. mark fixed in position with machine screws and duly welded including all other suitable locking arrangements provided and welded with the frame and making holes and fixing glazing clips in the frame, filing the welds and finished with a coat of red lead non setting primer complete in all respects.	0.2	Quintal	1069.70	325%	4546.23	909.25	18.35
48	Applying pink primer or aluminium priming coat on wood work including preparation of surface knotting and stopping etc.	400	Sqm.	3.75	125%	8.44	3375.00	16.2
49	Applying two coats excluding priming coat with synthetic enamel paint in all shades on new woodwork or metallic or plastered or concrete surfaces to give an even shade (with first quality paint)	400	Sqm.	9.40	125%	21.15	8460.00	16.3
51	Applying priming coat with metal primer on new steel or iron work including preparation of surface with first quality paint)	150	Sqm.	2.95	125%	6.64	995.63	16.9
51	painting two coats e/c priming coat with ready mixed paint for metallic surfaces in all shades on new steel or iron work.to give an even shade (with first quality paint)	150	Sqm.	7.00	125%	15.75	2362.50	16.18
52	preparation of plaster surface for oil bound distemper including sand papering the surface, applying 1 coat of linseed oil and filling with approved quality filler consisting of white led, linseed oil, warnish and chalk mitti including finishing the surface to the required finish complete	4400	Sqm	11.15	125%	25.09	110385.00	16.52
53	Painting two coats with ready- mixed emulsion paint in all shades for interior use on bricks plaster, cement fibre-board etc.	590	Sqm	10.90	125%	24.53	14469.75	16.27
54	Painting two coats with ready- mixed exterior paint in all shades on newly plastered or concrete surface of walls.	1230	Sqm	13.45	125%	30.26	37222.88	16.26
55	Spirit polishing two coats including 2 coats of wood filler on new work.	600	Sqm	11.15	125%	25.09	15052.50	16.44
55	Providing and fixing premoulded bituminous joint filler, for expansion joints, including the cost of sealing compound and primer coat.							

	(ii) 12mm wide		Per mtr. per cm depth					
		1000		2.45	325%	10.41	10412.50	24.35(a)
	<b>TOTAL</b>						<b>9367045.38</b>	
	The rate quoted by the contractor shall be for all heights and levels as per drawings and for all scaffolding work and other connecting operations for below mentioned items.							
1.	Providing and fixing in position stainless steel Hand Rail system including mid rails welded built-up section using pipes and connecting plates of stainless steel grade 304 polished to satin finish, of required diameter and thickness including cutting, welding, grinding, bending to required profile and shape, hoisting, buffing, polishing, cutting chases/embedding in RCC/masonry, fixing with stainless steel (grade 304) screws, nuts, bolts rosette covers and washers or stainless steel fasteners to make it rigidly fixed and stable against impact force with necessary bernds and terminations and making good the walls / plaster etc. all complete as per drawings and direction of Engineer-in-Charge.							
	The item includes epoxy grouts welding etc. which shall not be measured for purpose of payment. Weight of stainless steel pipes balusters and mid rails, stainless steel plates rosette cover, nut and bolts etc as actually provided shall only be mesured in Kg. for payment	500	kg	715.5		715.5	357750.00	
2.	Providing and fixing Aluminum Anolized sliding bolts (ISI marked) necessary stainless steel and make with nuts and screws etc. complete :							
	250x16 mm	80	No.	150.00		150.00	12000.00	
3.	Providing and fixing Aluminum Anolized tower bolts of (ISI marked) stainless steel make with necessary screws etc. complete :							
	250x10 mm	100	No.	90.00		90.00	9000.00	
	150x10 mm	100	No.	80.00		80.00	8000.00	
4.	Providing and fixing Aluminum Anolized handles (ISI mark) with necessary screws etc complete.							
	125 mm	200	No	50.00		50.00	10000.00	

	Providing and fixing Aluminum hanging floor door stopper of approval make and quality(ACME/BOLT/HARDWYN) with necessary screws etc complete.						
	Twin rubber stopper.	60	Nos.	40.00		40.00	2400.00
6. NS	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS : 1285, fixed with rawl plugs and screws or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/neoprene felt etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / panelling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing and panelling to be paid for separately) :						
	For fixed portion.						
	Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)	200	kg	290.45		290.45	58090.00
	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of PVC / neoprene gasket required (Fittings shall be paid for separately).						
	Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)	200	kg	310.45		310.45	62090.00
	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with PVC/ neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item) :						
	With float glass panes of 5.50 mm thickness	50	sqm	673.55		673.55	33677.50

8. NS	Providing and fixing double action hydraulic floor spring of approved brand and manufacture IS : 6315 marked, for doors including cost of cutting floors as required, embedding in floors and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge.							
	With stainless steel cover plate	2	nos	1733.50	each	1733.50	3467.00	
NS	Providing and fixing mirror polish, machine cut granite flooring at stair case, external concourse entrance steps and internal concourse etc., (sample of granite shall be approved by Engineer incharge) over 20 mm thick base of cement mortar 1:4(1 cement : 4 coarse sand) laid and joints treated with white cement, mixed with matching pigment, epoxy touch ups including rubbing, moulding etc. complete. as per direction of Engineer-in-charge.							
	20 mm thick Granite of any colour and shade as approved by the engineer-in-charge.							
	Any size	100	sqm	3663.00	sqm	3663.00	366300.00	
	Providing and fixing 18 mm thick mirror polished, machine cut granite stone in risers of steps. Skirting, dado and pillars laid on 12mm (average) thick cement mortar 1:3 ( 1 cement :3 coarse sand ) and joint treated with white cement slurry mixed with pigment to match the shade of the slab including rubbing, curring etc complete at all levels to the satisfaction of Engineer-in-charge.							
	Granite of any colour and shade as approved by the engineer-in-charge.							
	Any size	15	sqm	2889	sqm	2889	43335.00	NS
11	Providing and laying polished vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption's less than 0.08% and conforming to IS : 15622 of approved make in all colours and shades, laid on 20mm thick cement mortar 1:3 (1 cement : 3 coarse sand) including grouting the joints with white cement and matching pigments etc., complete.(Make as per engineer in-charge.)							
	Size of Tile 60x60 cm	915	sqm	1000.00	sqm	1000.00	915000.00	NS

12. NS	Providing and fixing 18 mm thick mirror polished, machine cut for Kitchen platforms, vanity counters facias and similar locations of required size of approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 with joints treated with Granite stone	35	sqm	3000.00	3000.00	105000.00
13. S	Extra for providing edge moulding to granite stone counters including machine polishing to edge to give high gloss finish etc.. Complete in all respects	40	Mtr.	150.00	150.00	6000.00
14. S	Providing and fixing first class plain coloured glazed tiles with border and highliter (of orient/Johnson make) of size 300x450 mm with minimum thickness 5mm in skirting and dado on 12mm thick cement plaster 1:3 (1 cement:3 coarse sand) the back of the tiles to be buttered with gre(as per engineer in-charge)	430	Sqm.	650.00	650.00	279500.00
15. NS	Providing and laying in floor plain coloured matt finish ceramic tiles of orient/Johnson make, size 400mm x 400mm (thickness as per manufacture) without warpage, laid on 20mm thick cement mortar 1:3 (1 cement: 3 coarse sand) including grouting the join as per engineer in-charge	85	Sqm	800	800.00	68000.00
16. NS	Providing and fixing 150mm wide sheet covering over expansion joints with rawl plugs and iron screws as per design to match the colour/shade of wall treatment with 3.15mm thick aluminium fluted strips.	25	Metre	300.00	300.00	7500.00
17. S	Providing, laying & fixing including necessary screws 350mm wide 3.15 thick aluminium sheet bend to shape as per drawing/ instructions to act as metal cradle on expansion joint including embedding in concrete complete in all respects upto the entire satisfaction of the Engineer-in-charge.	25	Metre	650.00	650.00	16250.00
18. NS	Providing Dr. Fixit pidiseal PS 41G (Gun grade), 42P (Pouring grade) or equivalent for horizontal and vertical expansion joint complete in all respects as per manufacturer detail to the satisfaction of EIC on all the floors.	25	Sqm.	200.00	200.00	5000.00
19. S	Providing and fixing 40mm CP fancing rod for palmets i/c bracket complete with all necessary fittings as per approved engineer in-charge.	400	mtr.	100.00	100.00	40000.00
20. S	Providing P.O.P under ceiling i/c cost of P.O.P. scaffolding & labour as satisfaction of Engineer-in-charge.					

a)	Cornish 15cmx15cm	1000	Mtr.	25	25	25000.00
b)	Moulding 25x25cm as per design under ceiling.	800	Mtr.	15	15	12000.00
c)	Flower around fan works under ceiling as per approved design.(satisfication of engineer-in-charge)	60	Mtr.	150	150	9000.00
	<b>Total:</b>					<b>11821404.88</b>

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**EXECUTIVE ENGINEER**  
**Construction Cell**  
**NIT-Kurukshetra**

**Name of work: - Extension of Guest House Building at NIT, Kurukshetra.  
(BASED ON HSR-1988 & LATEST SANCTIONED PREMIUM W.E.F. 01-02-2009)**

Sr. No.	HSR No.	Description	Qty.	Unit	Rate (in Rs.)	C.P.	Total Rate (Rs.)	Amount (in Rs.)
		<b>SUB PART-III: INTERNAL PH SERVICES (SCHEDULE ITEMS)</b>						
1	30.3	Providing and fixing in position best Indian make Anglo Indian water closet suit (as approved by the engineer-in-charge) consisting of:						
	i)	Wash down closet set vitreous china ware ( to the approval of the engineer-in-charge) with 'P' or S trap with or without vent as required and suitable joint for closet inlet;						
	ii)	One piece seat and lid in hollow black or white plastic fitted with chromium plated brass hinges and rubber buffers;(to the approval of the engineer-in-charge)						
	iii)	12.5 litres capacity mosquito proof C.I flushing cistern of best Indian make and all other necessary fittings complete as fully described in item no.30.1 above						
	iv)	32mm diameter telescopic 1.25 mm thick galvanized inside and outside steel flush pipe with clips.						
		Complete in all respects including cutting and making good the walls and floors and painting of fittings etc.						
		Single colour	20	Each	1474	250%	5159	103180
2	30.13	Extra over item No. 30.3 to 30.6 for providing and fixing best indian make plastic hygenic seat with lid complete instead of hollow black or white plastic seat and lid.						
	(iii)	Coloured plastic seat other than black or white(solid)	20		251	250%	878.5	17570
3	30.40	Providing & fixing 25mm thick, marble partitions for different type of urinals.						
	(b)	Vitreous Chinaware partition plate.	2	Each	434.00	250%	1519.00	3038
4	30.41	P/F in position best Indian make lavatory Suites						
		White						

13	30.71	P/F in position best Indian make bevelled edge 5.5mm thick mirror fixed in position by means of 4 nos. C.P. brass screws and washers complete including cutting and making good the walls etc.						
	(a)	Indian make						
		(ii) 600 mm x 450mm	20	Each	107.00	250%	374.50	7490
14	30.73	P/F in position best Indian make coat & hat hooks fixed with C.P. brass screws complete including cutting and making good the walls etc.						
	(a)	C.P. brass						
		(ii) Two way	68	Each	43.00	250%	150.50	10234
15	30.74	Providing and fixing in position super quality 65 mm i/d opening CP brass dome type hinged grating weighting about 750 gms. Fixed in cement mortar 1:2 complete in all respects (as required by the Engineer-in-charge).	38	Each	67.50	250%	236.25	8978
16	30.75	Providing & fixing in position 15mm i/d C.P. brass bib cocks of best quality (as required by the Engineer-in-charge)						
	(a)	Bib cock long body	70	Each	116.00	250%	406.00	28420
	(c)	Bib cocks	38	Each	100.00	250%	350.00	13300
17	30.76	P/F in position C.P. brass stop cocks (as approved by Engineer-in-charge)						
	(a)	15mm stop cocks						
		(ii) Concealed stop cocks with flange	140	Each	130.00	250%	455.00	63700
18	30.8	Extra over item Nos. 30.1 to 30.4 and 30.6 for providing and fixing 15 litres capacity vitreous China high level cistern complete with internal brass fitting instead of 12.5 litres capacity high level C.I cistern complete (as approved by the engineer-in -charge)						
		Single colour	20	Each	458.00	250%	1603.00	734174
19	30.83	P/F in position best Indian make C.P. brass inlet connection 15mm with 375mm pipe & CP brass nuts.	120	Each	115.00	250%	402.50	48300



20	30.84	P/F in position HCI soil, waste, vent pipes to ISI specification or any other reputed firm including cutting & wastage etc. & cutting holes in walls, roofs or floor etc. and making good the floor & wall but excluding cost of lead jointing.						
	(a)	100mm internal diameter	300	Mtr.	97.50	300%	390.00	117000
	(b)	75mm internal diameter	300	Mtr.	83.00	300%	332.00	99600
21	30.87	Providing lead caulked joints to HCI pipes & specials conforming to ISI specification of ELC or any other reputed firm including cost of lead yarn, fuel & tools etc.						
	(a)	100mm internal diameter (1.13 kg)	195	Each	33.50	225%	108.88	21231
	(b)	75 mm internal diameter (0.91 kg)	300	Each	27.50	225%	89.38	26813
22	30.88	Providing and fixing in position MS or Heavy flat iron clamps made out of MS flat not less than 5 mm of the approved design for fixing CI Soil waste vent or anti pipes to walls complete in all respects including cutting and making good the walls and floors etc. and painting						
	(a)	For 100 mm internal diameter pipes	120	Each	12.50	300%	50.00	6000
	(b)	For 75 mm internal diameter pipes	120	Each	11.00	300%	44.00	5280
23	30.89	P/F HCI floor trap ISI marked of the self-cleaning design with C.P. brass hinged grating with or without vent arm & including cement concrete 1:2:4 complete in all respects						
	(b)	With 75mm internal diameter outlet	38	Each	105.00	300%	420.00	15960
24	30.90	PROVIDING AND FIXING IN POSITION HCI 50mm INTERNAL DIAMETER OUTLET PLAIN NAHAN TRAP ISI Marked of the self cleaning design with CP BRASS HINGED GRATING WITH FRAME WEIGHING 6.80 KG EACH FIXED complete as fully described in item no. 30.89 above.						
	(b)	75 mm i/d outlet plain Nahani Trap.	38	Each	100.00	300%	400.00	15200
25	30.91	P/F in position HCI specials for soil waste vent pipes to ISI specification including cutting holes in walls & making good but excluding cost of lead joints						

	(a)	For 100mm internal diameter pipes					
		(i) heal rest bend	20	Each	58.00	300%	4640
		ii) Double junction with door 100 mm x100x100x100mm.	20	Each	99.00	300%	6920
		(iv) single junction with door 100mm x100mm x100mm	18	Each	86.50	300%	6228
		(vi) Single junction plain 100mmx100mmx100mm	20	Each	76.50	300%	6120
		(xiii) Bend with door	10	Each	60.00	300%	2400
		(xiv) Bend plain	10	Each	53.00	300%	2120
		(xv) Terminal guard	17	Each	39.50	300%	2686
		(xvi) Cowls	20	Each	36.50	300%	2920
		(xxii) Collars	30	Each	27.50	300%	3300
	(b)	For 75mm internal diameter pipes					
		(i) Heal rest bend	20	Each	39.50	300%	3160
		(iv) Single junction with door 75mmx75mmx75mm	18	Each	59.00	300%	4248
		(vi) Single junction plain 75mmx75mmx75mm	19	Each	50.50	300%	5814
		(xiii) Bend with door	17	Each	42.00	300%	2856
		(xiv) Bend plain	2	Each	39.50	300%	316
		(xv) Terminal guard	17	Each	27.50	300%	1870
		(xvii) Cowls	17	Each	28.00	300%	1904
		(xviii) Collars	57	Each	22.50	300%	5130
26	30.95	Cutting chase in brick wall in cement for embedding G.I. or HCI pipe lines & making good the same					
	(a)	Size 75x75mm	60	Mtr.	6.00	250%	1260
27	30.101	Painting HCI soil waste and vent pipes and fittings with black bitumastic ordinary paint of approved manufacture two coats on new work.					
	(a)	100 mm internal diameter	300	MTR	1.85	250%	1943
	(b)	75 mm internal diameter	300	MTR	1.35	250%	1418
28	30.110	P/F in position automatic brass ball valves in tanks					
	(b)	With plastic ball					
		(iii) 25mm diameter	10	Each	65.50	250%	2293
29	30.114	P/F in position Gully traps fixed in cement concrete 1:4:8 with HCI grating 150x150mm CI cover weighing approximately 7.26 kg & frame clear opening 300 x 300mm and chamber including cost of brick work 1:5 cement concrete 1:8:16 and C.C. 1:2:4 in coping					
	(b)	100mm internal diameter HCI gully traps	19	Each	208.00	300%	15808

30	30.115	Providing and fixing in position best Indian make vitreous china ware channel of size 600 mm x 150 including laying and fixing in cement concrete 1:2:4 complete as required by the Engineer-in-charge.						
	(i)	White	6	Each	92.00	250%	322.00	1932
31	28.24	Cutting holes upto 23cm through brick work in cement wall for pipes and making good						
	(a)	11.43cm thickness of walls	40	Each	14.00	250%	49.00	1960
	(b)	22.86 cm. thickness of walls	60	Each	20.35	250%	71.23	4274
32	28.47	Bailing out water from the trenches for making new connections in fully charged pipelines						
	(a)	Upto 200mm internal diameter	4	Each	67.50	250%	236.25	945
33	29.84	Constructing brick masonry inspection chamber upto 60 mtr.depth in cement mortar 1:5 cement concrete 1:2:4 benching, 12mm thick cement plaster, RCC 1:2:4 slab 100mm thick with with 455x455 mmx455x610mm inside light duty GI inspection chamber cover & frame with 3 coats of black bitumastic paint.						
	(c)	Size 600x900mm inside	20	Each	690.00	375%	3277.50	65550
34	29.85	Extra for every 0.30 mts. depths of inspection chamber						
	(c)	600mmx900mm	20	Each	139.00	375%	660.25	13205
35	6.8	Excavation for pipelines running under pressure in trenches and pits in open areas where disposal of surplus earth is done alongwith the alignment and restoration of unmetalled surface to the original condition						
	(a)	Without timbering and shoring upto 1.5 meters depth	90	100 Cum	1030.00	300%	4120.00	3708
36	6.10	Excavation of trenches in street lanes or in open area for storm sewer, sewers running by gravity & man holes to full depth and removal of surplus soil upto to a lead of 1Km in ordinary soil						
	(a)	For depth of excavation not exceeding 3 mts. below ground level	150	100 Cum	1189.00	300%	4756.00	7134

37	10.39	Cement concrete 1:4:8 with stone aggregate 40mm nominal size in foundation and plinth	20	Cum	403.10	340%	1773.64	35473
38	10.41	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in foundation and plinth	10	Cum	615.60	340%	2708.64	27086
39	10.59+ noteV(b)	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in first storey upto 4 metres above plinth level						
		-do- (first storey)	3	Cum	621.85	340%	2736.14	8208
		-do- (second storey)	4	Cum	624.40	340%	2747.36	10989
		<b>TOTAL SCHEDULE ITEMS:</b>					<b>1705891.69</b>	
		<b>SUB PART-IV: INTERNAL PH SERVICES (NON-SCHEDULE ITEMS)</b>						
1		Providing and laying cement concrete 1:2:4 75mm in bed and around C.I soil waste pipe 100mm and 75mm i/d under floor including centering and shuttering where required.						
	(a)	100mm dia	35	Mtr.	300.00		300.00	10500
	(b)	75 mm dia	60	Mtr.	240.00		240.00	14400
2	NSR	P/F in position C.P. jet connection of EWC complete including C.P. plate for jet & PVC connection for jet point complete in all respects.	20	Each	600.00		600.00	12000
3	NSR (based on 30.53)	Providing and fixing in position best quality stainless steel sinks with complete fittings as fully described in item No.30.51 above.						
	(a)	600 mm x 450 mm x 200 mm	2	Each	9000.00		9000.00	18000
4	NSR	Providing, laying, jointing glazed stoneware pipes grade A' with stiff mixture of cement mortar in the proportion of 1:1 (1 cement, 1 fine sand) including testing of joints etc. complete.						
		150mm i/d	100	Mtr.	150.00		150.00	15000
	(b)	200mm i/d	50	Mtr.	230.00		230.00	11500
5	NS	Providing and fixing of G.M. Peat valves heavy patterns with hand wheels ISI marked to GI pipe lines.						
	(a)	25mm i/d	20	Each	400.00		400.00	8000
	(b)	40mm i/d	10	Each	850.00		850.00	8500
	(c)	80mm i/d	1	Each	1600.00		1600.00	1600

6	NS	Providing, testing and fixing G.I. pipe 'B' class medium duty including cost of specials such as Tee, elbow, bends etc. and threading inside the building						
		15mm i/d	400	Mtr.	120.00		120.00	48000
		20mm i/d	250	Mtr.	144.00		144.00	36000
		25mm i/d	200	Mtr.	190.00		190.00	38000
		40mm i/d	100	Mtr.	250.00		250.00	25000
		50mm i/d	100	Mtr.	300.00		300.00	30000
		80mm i/d	50	Mtr.	500.00		500.00	25000
7	NS	Extra for providing and fixing union coupling to G.I. pipe lines including cost of union complete						
		15mm i/d	40	each	50.00		50.00	2000
		20mm i/d	25	each	78.00		78.00	1950
		25mm i/d	20	each	100.00		100.00	2000
		40mm I/d	10	each	180.00		180.00	1800
		50mm I/d	10	each	200.00		200.00	2000
		80mm I/d	5	each	288.00		288.00	1440
8	NS	Providing and stringing S & S centrifugally cast (spun) iron pipes (Class LA) complete in trenches to the approval of Engineer-in-charge.						
		80mm i/d	50	Mtr.	925.00		925.00	46250
9	NS	Supplying and fixing ISI marked sluice valve double flanged with brass spindle complete in all respect to the approval of Engineer-in-charge. 80 mm	2	Each	3000.00		3000.00	6000
10	NS	Const. of sluice valve haudi 1m x 1m x 1m with brick work 1:5 cement sand mortar finished with 12.5mm cement plaster 1:4 including RCC 1:2:4 slab with reinforcement, surface box complete in all respect to the approval of Engineer-in-charge.	2	Each	3000.00		3000.00	6000
11	NS	Providing and fixing in position H.D.P.E. water tanks complete with inlet, outlet, scour and overflow flanges including masonry based underneath as approved by the Engineer-in-charge of different capacity tanks complete in all respect.						
		Capacity upto 2000 litres	20000	Ltrs.	7.00		7.00	140000
12	NS	Making sewer connection with the existing sewer line	4	Each	1000.00		1000.00	4000
		<b>TOTAL NON-SCHEDULE ITEMS</b>						<b>514940</b>

		SUB PART-III: INTERNAL PH SERVICES (SCHEDULE ITEMS)					1705892
		SUB HEAD-IV : INTERNAL PH SERVICES (NON SCHEDULED ITEMS)					514940
		Grand Total:					2220832
	Note:-						
	1)	All china ware should be of Cera /Hindustan/ CERA/HINDWARE/ PERRYWARE Make Ist quality					
	2)	All C.P. fittings/fixture should be of SEIKO/Parko/ make.					
	3)	All fitting should be Unik & G.I. pipe should be TATA / Jindal Hisar.					

-----Sd-----  
EXECUTIVE  
ENGINEER  
Construction Cell  
NIT-Kurukshetra

**ESTIMATE OF ELECT. SERVICES FOR DEVELOPMENT OF GUEST HOUSE BUILDING, NATIONAL INSTITUTE OF TECHNOLOGY, KURUKSHETRA**

(BASED ON HSR-1988 & LATEST SANCTIONED PREMIUM W.E.F. 01-02-2009)

Sr. No.	Ref. of HSR	Description	Qty	Unit	Rate	C.P.	Total Rate	Estimated Cost
<b>SUB HEAD-I: INTERNAL ELECTRICAL SERVICES (SCHEDULE ITEMS)</b>								
1	31.36	Wiring in 1.5 sq mm PVC insulated Copper conductor cable in 1.6 mm thick conduit pipe						
	(I)	<b>Fan point</b>						
	(b)	Medium Point	36	Each	524.00	10%	576.40	20750
	(c)	Long Point	20	Each	733.00	10%	806.30	16120
	(II)	<b>Light Point</b>						
	(a)	Short Point	148	Each	251.00	10%	276.10	40860
	(b)	Medium Point	76	Each	433.00	10%	476.30	36190
	(c)	Long Point	82	Each	639.00	10%	702.90	57630
	(III)	Twin Control light point with 2 way 5 amp. Single pole switch						
	(c)	Long Point	4	Each	726.00	10%	798.60	3190
	(VII)	3 pin 5 amp. Plug point including earthing the 3 <sup>rd</sup> pin etc.						
	(a)	Short Point	76	Each	283.00	10%	311.30	23650
	(c)	Long Point	35	Each	672.00	10%	739.20	25870
	(VIII)	3 pin 15 amp. Plug point including earthing the 3 <sup>rd</sup> pin etc. with 4 sq mm size						
	(b)	Medium point	3	Each	667.00	10%	733.70	2200
	(c)	Long point	56	Each	970.00	10%	1067.00	59750
	(VI)	Call bell point including MS Box of Size 180 mm x 100 mm x 60 mm deep for call bell						
	(a)	Short Point	21	Each	291.00	10%	320.10	6720
2	31.40	Supply and erection of PVC unsheathed Copper conductor cable single core 1100 volts grade in pipe of suitable size excluding cost and erection of pipe						
	(i)	Cable Size 1.5 sq mm (3/0.81 mm)	1475	Meter	10.20	10%	11.22	16550
	(iii)	Cable Size 4.0 Sq mm (Normal Power) (7/0.85 mm)	1200	Meter	24.50	10%	26.95	32340
	(iv)	Size 6.0 Sq mm (7/1.05 mm)	2450	Meter	35.60	10%	39.16	95940
	(v)	Size 10.0 Sq mm (7/1.35 mm)	320	Meter	50.00	10%	55.00	17600
	(vi)	Size 16.0 Sq mm (7/1.70 mm)	952	Meter	83.70	10%	92.07	87550
3	31.41	Supply & erection of double door sheet steel enclosure distribution board suitable for MCBs and ELCBs etc. recessed in wall including bonding to earth with all labour and material required to complete the job in all respect upto to the entire satisfaction of the Engineer-in-charge of the work.						

	(vi)	8-way, TP&N (Horizontal) (8+24)	12	Each	2100.00	10%	2310.00	27720
4	31.16	Supply and erection of blanking sheet in existing distribution board	85	Each	2.25	60%	3.60	306
5	31.17	Supply and erection of miniature circuit breaker/ isolator 240/415 V in the existing distribution board including making necessary connection:-						
	(a)	Miniature Circuit Breakers of 9 K.A. breaking capacity						
	(ii)	6 amp to 32 amp (SP) Havell's/ Standard	131	Each	95.00	30%	123.50	16170
	(iii)	40 amp to 63 amp. (TPN) Havell's/ Standard	12	Each	499.00	30%	648.70	7784
6	31.42	Supply & erection of double pole/ four pole Residual current circuit breaker (RCCB/ELCB) suitable for operation on 240/415V, 5Hz AC supply installed in existing sheet steel enclosure including making necessary connections and bonding to earth with all labour and material required to complete the job in all respect upto to the entire satisfaction of the Engineer-in-charge of the work.						
	(xiv)	40 A /415V FP ELCB with 100 mA sensitivity	12	Each	1600.00	10%	1760.00	21120
	(xvi)	63 A /415V FP ELCB with 100 mA sensitivity	24	Each	1900.00	10%	2090.00	50160
7	31.21	Supply and erection of pipe for wiring purposes including bends inspection boxes etc. where necessary and painting as required:-						
	(xxi)	Heavy gauge welded conduit pipe 20 mm dia 1.60 mm thickness flushed	636	Meter	16.30	175%	44.83	28509
	(xxii)	Heavy gauge welded conduit pipe 25 mm dia 1.60 mm thickness flushed	4811	Meter	19.60	175%	53.90	259313
	(xxiii)	Heavy gauge welded conduit pipe 32 mm dia 1.60 mm thickness flushed	50	Meter	24.20	175%	66.55	3328
8	31.22	Earthing						
	(i)	Earthing with G.I. earth pipe 4.5 m long and 40 mm dia with masonry enclosures on the top, etc.	4	Each	378.00	180%	1058.40	4234
	(ii)	Extra for using salt & charcoal/coke for pipe earth electrode as required.	4	Each	125.00	180%	350.00	1400
	(iii)	Earthing with G.I. earth plate 600 mm x 600 mm x 6 mm thick including accessories and providing masonry enclosures with cover plate having locking arrangement and watering pipe etc. (but without charcoal or coke and salt) complete as required	4	Each	453.00	180%	1268.40	5074
	(v)	Extra for charcoal or coke and salt for G.I. plate or copper plate earth electrode	4	Each	186.00	180%	520.80	2083



	(xi)	Pdg. and fixing 25 mm x 5 mm G.I. Strip in 40 mm dia G.I. pipe from earth electrode as required	30	Meter	65.10	180%	182.28	546
	(xv)	Pdg. and fixing 25 mm x 5 mm GI strip on surface or in recess for connections etc. as required with all labour and material	10	Meter	20.30	180%	56.84	56
	(xvi)	Pdg. and fixing 4.00 mm dia G.I. wire on surface or in recess for loop earthing as required	1256	Meter	3.40	180%	9.52	1195
	(vii)	Supplying & Laying 6 SWG G.I Wire 0.5 metre below ground level as conductor earth electrode including thimbles, soldering, etc as required.	10	Meter	3.50	180%	9.80	98
9	31.26	Supply & erection of underground cables, loose in existing pipe or trenches/ on surface complete with necessary connections etc as required.						
	xxx)	3.5 X 120 Sq. mm (Aluminium Conductor)	20	Mtrs.	147.60	140%	354.24	708
	xxix)	3.5 X 95 Sq. mm (Aluminium Conductor)	105	Mtrs.	121.10	140%	290.64	3051
	xxviii)	3.5 X 70 Sq. mm (Aluminium Conductor)	105	Mtrs.	100.30	140%	240.72	2527
10	31.28	Supply and erection of suitable compression type brass Cable glands for underground Cable:-						
		(ii) 10 Sq mm to 16 Sq mm Cable 2 to 4 Core	32	Each	9.20	140%	22.08	707
		(iv) 70 Sq mm to 95 Sq mm Cable 3 to 3 1/2 Core	8	Each	22.50	140%	54.00	432
		(v) 120 Sq. mm to 185 Sq.mm cable 3 to 3 1/2 Core	2	Each	28.60	140%	68.64	137
11	31.18 (xxvi)	Erection of hexagonal M.S. box 1.60 mm thick having each side 8 cms, 7.5 cms deep, top covered with M.S. lid by means of screws including 10 mm dia 30 cm long mild steel rod made into suitable suspension hook and erected in R.C.C. slab of erection of fan, the bottom covered with 3 mm thick bakelite sheet with suitable holes, painting etc. complete with all labour and material required to complete the job.	56	Each	26.30	200%	78.90	4418
12	31.35 (vii)	Supply and erection of 75 mm x 75 mm x 60 mm deep M.S. box for telephone, Computer and TV System including 2 pin 5 amp. socket including cost of bakelite sheet	93	Each	18.00	130%	41.40	3850

13	31.47	Supply & Erection of MS Box of size 200 mm x 150mm x 100 mm deep covered with bakelite sheet including cost & flushed erection of 32 A DP Switch, 15 A Socket and switch with necessary connections complete in all respect upto the entire satisfaction of Engineer-in - charge of the work.	41	Each	350.00	10%	385.00	1578
<b>TOTAL SCHEDULED ITEMS</b>								<b>1076565.7</b>

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EXECUTIVE  
ENGINEER  
Construction Cell  
NIT-Kurukshetra

**ESTIMATE OF ELECT. SERVICES FOR DEVELOPMENT OF GUEST HOUSE BUILDING, NATIONAL INSTITUTE OF TECHNOLOGY, KURUKSHETRA**

**(BASED ON HSR-1988 & LATEST SANCTIONED PREMIUM W.E.F. 01-02-2009)**

**SUB HEAD-II : INTERNAL ELECTRICAL SERVICES (NON SCHEDULED ITEMS) (MARKET RATES)**

Sr. No.	HSR No.	Description	Qty	Unit	Rate	C.P.	Estimated Cost
1		Supplying & fixing RJ-11 modular type Telephone sockets outlets in recessed/surface steel conduit etc as required. (For Telephone/Intercom Points)	31	Nos.	117.00	Each	3627.00
2		Supplying & fixing RJ-45 modular type Computer sockets outlets in recessed/surface steel conduit etc as required. (For Computer Nodes)	35	Nos.	374.00	Each	13090.00
3		Supplying & fixing tv Coaxial Socket outlets modular type in recessed/surface steel conduit etc as required. (For TV Points)	27	Nos.	107.00	Each	2889.00
4		Supplying & fixing stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc as required.	56	Nos.	443.00	Each	24808.00

**SUBHEAD-"II" (BDB'S)**

1		Supplying, installation, Testing & Commissioning of Cubical type Branch Distribution Boards (BDB) of the following types made out of 14 gauge (2 mm thick) CRCA sheet complete with the accessories i/e. interconnections with suitable copper solid strip connections 100 A & above and with copper wires below, painting etc. and complete with supplying & fixing the following accessories in each type of following boards etc. as required.					
1.1		<b>MDB (LIGHT &amp; POWER) Ground Floor (Minimum Depth of Panel shall be 500 mm deep)</b>					
(A)		<b>Incoming</b>					
i)		1 No. 300 Amp rating TP Moulded Case Circuit Breakers with neutral link, Front operated handle & Thermal magnetic release (36 kA) (L+P)					
ii)		1 Set 300 Amp 4 Bars Cu. Bus Bar					
iii)		1 Set LED type Indication lights					
iv)		1 No. Analogue Voltmeter (0-500 V) 96 mm. sq					
v)		1 No. Analogue Ammeter (0-100 A) 96 mm. sq					
vi)		1 Set CTs for Ammeter 300/5 A ratio					
vii)		2 Nos. Selector Switches for Voltmeter & Ammeter					
viii)		3 Nos. 2 A SPMCB					
		<b>Outgoing</b>					
i)		2 Nos. 200 A TP MCCB, 36 KA					
ii)		1 No. 100 A TP MCCB, 25 KA (Spare)					
(B)		<b>Incoming</b>					
		1 No. 100 Amp rating TP Moulded Case Circuit Breakers with neutral link, Front operated handle & Thermal magnetic release (25 kA) (DG SUPPLY FOR LIGHT)					
ii)		1 No. 100 Amp rating Changeover Switch					
iii)		1 Set 150 Amp 4 Bars Cu. Bus Bar					
iv)		1 Set LED type Indication lights					
v)		1 No. Analogue Voltmeter (0-500 V) 96 mm. sq					
vi)		1 No. Analogue Ammeter (0-100 A) 96 mm. sq					
vii)		1 Set CTs for Ammeter 100/5 A ratio					
viii)		2 Nos. Selector Switches for Voltmeter & Ammeter					

ix)	3 Nos. 2 A SPMCB					
	<b>Outgoing</b>					
i)	4 Nos. 63 A TP MCCB, 25 KA (1 Spare)	1	Set	123773.00	Set	123773.00
1.2	<b>BDB (POWER) GROUND FLOOR</b> <b>(Minimum Depth of Panel shall be 300 mm deep)</b>					
	<b>Incoming</b>					
i)	1 No. 200 Amp rating TP MCCB (36 kA)					
ii)	1 Set 250 Amp 4 Bars Cu. Bus Bar					
iii)	1 Set LED type Indication lights					
iv)	1 No. Analogue Voltmeter (0-500 V) 96 mm. sq					
v)	1 No. Analogue Ammeter (0-100 A) 96 mm. sq					
vi)	1 Set CTs for Ammeter 150/5 A ratio					
vii)	2 Nos. Selector Switches for Voltmeter & Ammeter					
viii)	3 Nos. 2 A SPMCB					
	<b>Outgoing</b>					
i)	5 Nos. 63 A TP MCCB, 16 KA (1 Spare)	2	Sets	54913.00	Set	109826.00
1.3	<b>BDB (LIGHT) GROUND FLOOR (Minimum Depth of Panel shall be 300 mm deep)</b>					
	<b>Incoming</b>					
i)	1 No. 63 Amp rating TP MCCB (16 kA)					
ii)	1 Set 100 Amp 4 Bars Cu. Bus Bar					
iii)	1 Set LED type Indication lights					
iv)	1 No. Analogue Voltmeter (0-500 V) 96 mm. sq					
v)	1 No. Analogue Ammeter (0-100 A) 96 mm. sq					
vi)	1 Set CTs for Ammeter 100/5 A ratio					
vii)	2 Nos. Selector Switches for Voltmeter & Ammeter					
viii)	3 Nos. 2 A SPMCB					
	<b>Outgoing</b>					
i)	3 Nos. 40 A TP MCCB, 16 KA (1 Spare)	2	Sets	25498.00	Set	50996.00
3	Providing & fixing thermoplastic polycarbonate boxes of size 200 x 160 x 98 mm conforming to IP-65 degree of protection along with 6A MCB and 3 way connector complete etc as required. (FOR SECURITY LIGHTING)	12	NOS.	2500.00	Each	30000.00
	<b>TOTAL</b>					<b>359009.00</b>
	<b>SUBHEAD - III LIGHTING FIXTURES &amp; FANS</b>					
1	Supplying, Installation, Testing & Commissioning of 1 x 28 watt T-5 Fixture surface/ ceiling mounted, Energy efficient, following T-5 fluorescent tube light fitting, housing made out of CRCA sheet 0.5 mm thick (min.) with electronic ballast and lamp holder duly wired up ready for 230 volt, single phase, 50Hz AC supply, with lamp complete with all accessories etc as required.	70	NOS.	1112	Each	77840
2	Supplying, Installation, Testing & Commissioning of 2 x 28 W Decorative mirror optics ceiling/ surface mounted fluorescent tube light fixture, housing made out of CRCA sheet powder coated with pre anodised aluminium bright reflector, electronic ballast and lamp holder duly wired up ready for 230 volt, single phase, 50Hz AC Supply with lamp complete with all accessories as required.	2	NOS.	3332	Each	6664

3	Supplying, Installation, Testing & Commissioning of 3 x 14 W Decorative type surface/ ceiling mounted, Energy efficient, T-5 fluorescent tube light fitting with specular parabolic reflector with infill made of high purity pre anodised aluminium suitable for following configurations with electronic ballast and lamp holder duly wired up ready for 230 volt ,single phase,50Hz AC Supply with lamp, complete with all accessories as required.	23	NOS.	3643	Each	837
4	Supplying, Installation, Testing & Commissioning of 1 X 25 W decorative Ceiling Light suitable for 25W Energy Saving Lamp, with built in ballast & lamp complete etc as required.	21	NOS.	767	Each	1610
5	Supplying, Installation, Testing & Commissioning of 1 X 11 W decorative with end cap & Polycarbonate cover mirror light housing made out of CRCA sheet steel min. 0.5 mm thick powder coated, reflector (wherever required)0.3 mm thick complete with accessories like holder, electronic ballast with lamps etc as required.	33	NOS.	436	Each	1438
6	Supplying, Installation, Testing & Commissioning of 250 W MH integral flood lighting luminaire made of pressure die cast aluminium housing, Polycarbonate cover pre-anodised aluminium reflector suitable for 250 W MH Lamp with integral control gear comprising of copper ballast, Ignitor, Capacitor of same make as luminaire with lamp complete with all accessories etc as required.	12	NOS.	4876	Each	5851
7	Supplying, Installation, Testing & Commissioning of following Surface/Recessed mounting low glare Down lighter with specular finished reflector integral type control gear suitable for Horizontal Lamp, CRCA sheet steel body with Electronic Ballast duly wired with lamp complete etc as required.					
a)	1 X 18 W (Recess Type)	30	NOS.	1029	Each	30870
b)	1 X 18 W (Surface Type)	49	NOS.	824	Each	40376
c)	2 X 18 W (Recess Type)	38	NOS.	1324	Each	50312
8	Supplying, Installation, Testing & Commissioning of 2 x 36 W Decorative type surface mounted, Energy efficient, T-5 fluorescent tube light fitting with special aqua louvres pre anodised aluminium suitable for following configurations with electronic ballast and lamp holder duly wired up ready for 230 volt ,single phase,50Hz AC Supply with lamp, complete with all accessories as required.	4	NOS.	2950	Each	11800
9	Supplying, Installation, Testing & Commissioning of following Fancy wall bracket with shade and accessories including connections,complete with Lamp etc as required.					
a)	1 x 18 W Double Swivel Type Fancy Wall Bracket Light (Brass)	12	NOS.	1438	Each	17256
b)	1 x 18 W Cone Type Fancy Wall Bracket Light	32	NOS.	730	Each	23360

10	Supplying of 1200 mm size ceiling fan complete with double ball bearing, motor, blades, downrod, canopy, capacitor, etc. suitable for operation on 230 V 50 Hz A.C. supply complete as required.	56	NOS.	1154	Each	64
11	Supplying of 305 mm dia., 900 RPM Exhaust fan heavy duty suitable for single phase 230 V 50 Hz A.C. supply complete with motor, capacitor, louvers/shutters etc. complete as required.	23	NOS.	2045	Each	47
<b>TOTAL OF NS</b>						<b>901942</b>

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EXECUTIVE ENGINEER  
Construction Cell  
NIT-Kurukshetra

**Item No.11.7      To consider & approve the cost estimate for the construction of Twenty Numbers professor houses at National Institute of Technology, Kurukshetra.**

At present, there are Twenty eight no houses available in the institute. With the current increase intake at U.G. & P.G level and introduction of new UG. & P.G courses, there will be an additional requirement of faculty and teaching staff residences in future. In order to provide proper accommodation to professors of the Institute, there is an immediate need to construct at least 20 Numbers professors category houses in the Institute so that senior faculty can stay in the campus comfortably.

The cost estimate amounting to Rs. 220 Lacs for the construction of 10 Nos. professors houses was approved by the B&WC Committee in it's 8<sup>th</sup> meeting vide item no. 8.13. But as per the recommendations of B &WC in its 10th meeting held on 19.02.09, it is proposed that multistoried buildings should be constructed in future to utilize the vertical space, hence, it is proposed that above item i.e. 8.13 may be deferred and afresh approval for the construction of multistoreyed flats with (G+5) storey provision may be approved. Accordingly an fresh cost estimate has been framed by the construction cell amounting to Rs. 549.16 Lac for the construction of 20 numbers professors houses with a provision of parking at ground and four houses at each floor subsequently.

The B&WC is requested and approve to accord administrative approval to construct 20 number professors houses amounting to Rs. 549.16 Lac.

<b><u>COST ESTIMATE FOR CONSTRUCTION OF 20 NUMBERS PROFESSORS HOUSES AT NATIONAL INSTITUTE OF TECHNOLOGY, KURUKSHETRA.</u></b>					
<b>S. No.</b>	<b>Description</b>	<b>Qty.</b>	<b>Unit</b>	<b>Rate</b>	<b>Amount</b>
1	Building portion (Ground floor) : (Full building is RCC)	420 0	Sqm	8100	34020000
2	Add extra rate for raft footing	210 0	Sqm	5200	10920000
	<b>Total (1 + 2) = C</b>				<b>44940000</b>
	<b>SERVICES</b>				
3	Provision of internal water supply & PH services @ 12.5% of building cost i.e on amount - C				5617500
4	Provision of internal E.I. services	420 0	Sqm	500	2100000
5	Provision of external services	420 0	Sqm	50	210000
10	Land development @ 1% of building cost i.e on amount - C				449400
	<b>Total(D)</b>				<b>53316900</b>
	Add contingencies & petty establishment charges @ 3% on D				1599507
	<b>GRAND TOTAL</b>				<b>54916407</b>
				<b>Say Rs.</b>	<b>549.16 Lacs</b>
	<b>Cost per Sqm. = Rs. 13075/-</b>				
	<b>Cost per Sq. ft. = Rs. 1215/-</b>				

Sd/-  
Executive  
Engineer.  
Construction Cell  
NIT,  
Kurukshetra



**Item No. 11.8 To consider & approve the cost estimate for the construction of Twenty Numbers Assistant professor houses at National Institute of Technology, Kurukshetra.**

At present, there are sixty five no houses available in the institute. With the current increase in take at U.G. & P.G level and introduction of new UG. & P.G courses, there will be an additional requirement of faculty and teaching staff residences in future. In order to provide proper accommodation to assistant professors of the Institute, there is an immediate need to construct at least 20 Numbers assistant professors category houses in the Institute so that senior faculty can stay in the campus comfortably.

The cost estimate amounting to Rs. 167.00 Lacs for the construction of 10 Nos. houses was approved by the B&WC Committee in it's 8<sup>th</sup> meeting vide item no. 8.14. But as per the recommendations of B. &WC in its 10th meeting held on 19.02.09, it is proposed that multistoried buildings should be constructed in future to utilize the vertical space, hence, it is proposed that above item i.e. 8.14 may be deferred and afresh approval for the construction of multistoreyed flats with (G+5) storey provision may be approved. Accordingly an fresh cost estimate has been framed by the construction cell amounting to Rs. 470.71 Lac for the construction of 20 numbers houses with a provision of parking at ground and four houses at each floor subsequently.

The B&WC is requested and approve to accord administrative approval to construct 20 number assistant professors houses amounting to Rs. 470.71 Lac

<b>COST ESTIMATE FOR CONSTRUCTION OF 20 NUMBERS A.P. HOUSES AT NATIONAL INSTITUTE OF TECHNOLOGY, KURUKSHETRA.</b>					
S. No.	Description	Qty.	Unit	Rate	Amount
1	Building portion (Ground floor) : (Full building is RCC)	3600	Sqm.	8100	29160000
2	Add extra rate for raft footing	1800	Sqm.	5200	9360000
	<b>Total (A + B) = C</b>				<b>38520000</b>
	<b>SERVICES</b>				
3	Provision of internal water supply & PH services @ 12.5% of building cost i.e on amount - C				4815000
4	Provision of internal E.I. services	3600	Sqm.	500	1800000
5	Provision of external services	3600	Sqm.	50	180000
10	Land development @ 1% of building cost i.e on amount - C				385200
	<b>Total(D)</b>				<b>45700200</b>
	Add contingencies & petty establishment charges @ 3% on D				1371006
	<b>GRAND TOTAL</b>				<b>47071206</b>
				Say Rs.	470.71 Lacs
	Cost per Sqm. = Rs.13075/-				
	Cost per Sq. ft. = Rs. 1,215/-				

Sd/-  
Executive  
Engineer,  
Construction Cell  
NIT,  
Kurukshetra

**Item. No.-11.9    To consider & approve the revised cost estimate for the Construction of MBA & MCA Block -a two storey building at NIT, Kurukshetra.**

In the 9<sup>th</sup> meeting of Building & Works Committee held on 17.03.08, (vide item no. 9.4) the B & WC approved R.C.E amounting to Rs. 299.09 Lac for the construction of MBA & MCA block- a two storey building at NIT, Kurukshetra.

This office has prepared a cost estimate amounting to Rs.423.37 lac. Now the tenders were invited on 29.05.09, after obtaining prior approval of the Chairman B&WC in anticipation approval of Building & Works Committee. three tenders were received, after scrutinizing & preparing comparative statement, the work was allotted to the lowest Tenderer M/s A.K. Construction Co. Chandigarh with an estimated cost of Rs. 526.30 lac on 15.06.09.

It is therefore, requested that B&WC may consider & accord approval for Rs. 526.30 Lac for this work.

# Rate Quoted by the agencies

• Comparative Statement of Construction of MIDC & MCA Block-A Two story framed structure building at M1, Naurukneura.

Sr. No.	Description	Estimated Cost (HSR+CP)	A.K.Construction Co.CHD Premium	Amount (Rs.)	Sarthak Contracts P.Ltd.-Jaipur Premium	Amount (Rs.)	Allied Engineers Premium	Amount (Rs.)
1	Total Amount of Civil Schedule Items	34,749,615.44	(HSR+CP)+24.50% on all HSR items & on item 18.22 (HSR+CP)+33.25%	44,171,408.64	(HSR+CP)+24% on all HSR items	43,089,523.14	(HSR+CP)+ 32.70% on All HSR items	46,112,739.69
2	Total Amount of Public Health Schedule Items	899,304.15	(HSR+CP)+32% on all HSR items	1,187,081.48	(HSR+CP)+24% on all HSR items	1,115,137.15	(HSR+CP)+ 32.70% on All HSR items	1,193,376.61
3	Total Amount of Electrical Schedule Items	1,615,143.92	(HSR+CP)+17.15 % on all HSR items	1,892,141.10	(HSR+CP)+24% on all HSR items	2,002,778.46	(HSR+CP)+ 32.70% on All HSR items	2,143,295.98
1	Total Amount of Civil Non Schedule Items	2,552,066.40		2,435,150.00		3,951,080.00		3,012,400.00
2	Total Amount of Public Health Non Schedule Items	913,340.00		902,900.00		1,074,700.00		1,151,750.00
3	Total Amount of Electrical Non Schedule Items	1,826,293.00		2,040,550.00		1,554,500.00		1,610,605.00
	<b>TOTAL</b>	<b>42,555,762.91</b>		<b>52,629,231.22</b>		<b>52,787,718.75</b>		<b>55,224,167.28</b>

Say Rs. 42,555,763.00      52,629,231.00      52,787,719.00      55,224,167.00  
 Excess over Estimated Cost Rs. 10,073,468.00      10,231,956.00      12,668,404.00  
 Excess Percentage on Estimated Cost 23.67 %      24.04 %      29.77 %

## Submitted please:

Only three tenders were received on 29-05-2009 for the above work, one from M/s A.K.Construction Co.-CHD, 2nd from M/s Sarthak Contracts P.Ltd.-Jaipur, 3rd from M/s Allied Engineers-Ghararunda.

As per financial/ comparative statement prepared by this office, the rates quoted by M/s A.K.Construction Co.-CHD are the lowest rates with a cost of Rs. 5,26,29,231.00. The rates of M/s A.K.Construction Co. when compared with the estimated cost of the work, gives an excess of Rs.1,00,73,468.00 i.e. Rs.4,25,55,763.00 (-) 5,26,29,231.00 Rs. = (-) Rs.1,00,73,468.00 or 23.67%. The rate seems to be reasonable. May if approved, allot the work to the lowest agency i.e M/s M/s A.K.Construction Co.-CHD.

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EXECUTIVE ENGINEER  
Construction Cell

NIDUKS

**NAME OF WORK:- ACADEMIC BLOCKS OF MCA AND MBA, KURUKSHETRA  
(BASED ON HSR-1988 & LATEST SANCTIONED PREMIUM W.E.F. 01-02-2009)**

S. No.	HSR No.	Description	Qty.	Unit	Rate (in Rs.)	C.P.	Total Rate (Rs.)	Amount (in Rs.)
		<b>SUB PART-I: INTERNAL CIVIL WORKS (SCHEDULE ITEMS)</b>						
1	6.6	Earth work in excavation in foundation, trenches etc. in all kind of soils, not exceeding 2 mtrs. depth including dressing of bottom and sides of trenches, stacking the excavated soil, clear from the edge of excavation and subsequent filling around masonry in 15 cm layers with compaction, including disposal of all surplus soil as directed within a lead of 30 mtrs.	4600	100 Cum	1108.10	350%	4986.45	229376.70
	6.27	Clearing grass and removal of the rubbish upto distance of 50m outside the periphery of the area cleared.	2800	101 Cum	21.45	300%	85.80	2402.40
	10.39+note	Cement concrete 1:4:8 with stone aggregate 40mm nominal size in foundation and plinth (below 1.5 m depth)	342.00	Cum	405.65	310%	1784.86	610422.12
4	10.56	Cement concrete 1:4:8 with stone aggregate 20mm nominal size in first storey upto 4 metres above plinth level.	201.00	Cum	426.25	340%	1875.50	376975.50
	10.90+10.95 (b)	Cement concrete 1:1:2 with stone aggregate 20mm nominal size for reinforced concrete work in footing, strips foundations beams rafts, pedestals and approach slabs, of bridges etc. Excluding steel reinforcement and including centring & shuttering, laid in position, complete in all respects ( for work upto 1.5 metres below ground level.)	1054.00	Cum	942.40	340%	4146.56	4370474.24

6	10.82+10.95 (b)+note	Cement concrete 1:1:2 with stone aggregate 20mm nominal size for reinforced concrete work in slabs with inclination not exceeding 25 degree with horizontal, excluding steel reinforcement, but including centring and shuttering laid in position complete in all respect.						
		Ist storey	300.00	Cum	1253.20	340%	5514.08	1654224.00
		Iind storey	300.00	Cum	1260.50	340%	5546.20	1663860.00
		IIIrd storey	10.00	Cum	1267.80	340%	5578.32	55783.20
7	10.86+10.95 (b)+note	Cement concrete 1:2:4 with stone aggregate 20mm nominal size for reinforced concrete work for wall exceeding 20cm thickness (straight and curved) beams, girders, stair, coloums (square or rectangular) battens and lintels etc. excluding steel reinforcement but including centring and shuttering, laid in position complete in all respects.						
	a)	Ist storey	600.00	Cum	1357.15	340%	5971.46	3582876.00
	b)	Iind storey	350.00	Cum	1364.45	340%	6003.58	2101253.00
	c)	IIIrd storey	20.00	Cum	1371.75	340%	6035.70	120714.00
8	10.114	Damp proof course 40mm thick of cement concrete 1:2:4 using stone aggregate 20mm nominal size with 2 coats of bitumen 20/30 penetration at 1.65kg per sqm. laid hot and sanded.	140.00	Sqm	35.05	340%	154.22	21590.80
9	10.132	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in pavement, roads, taxi-tracks and run ways, laid to required slope and camber, i/c consolidation, finishing and tamping complete.	150.00	Cum	642.40	340%	2826.56	423984.00
10	11.2	First class brickwork laid in cement sand mortar 1:6 in foundation and plinth.	290.00	Cum	393.45	400%	1967.25	570502.50
11	11.7	First class brickwork laid in cement sand mortar 1:6 in first storey upto 4 meter above plinth level.						
	(i)	-do( first storey)	208.00	Cum	414.45	400%	2072.25	431028.00
	(ii)11.7+11.41(i)-	-do- (second storey)	215.00	Cum	422.70	400%	2113.50	454402.50

	(iii)11.7+11.41(i)	-do-( third storey)	60.00	Cum	430.95	400%	2154.75	129285.00
12	11.48(a)	11.43 cm thick brick wall laid in cement sand mortar 1:4 in superstructure.						
	(i)	-do( first storey)	905.00	Sqm	55.10	400%	275.50	249327.50
	(ii)	-do- (second storey)	753.00	Sam	56.05	400%	280.25	211028.25
13	13.13	Terracing consisting of dtiles 22.86x11.43x3.81cm laid over 87.50 mm iud filling on a layer 25mm mudplaster and another layer of mud mortar for laying the tiles, including two coats of bitumen laid hot at 1.65 Kg per sqm on top of RCC slab including grouting with cement sand mortar 1:3 and top surface to be left clean etc.						
		IIIrd storey	2210.00		53.95	400%	269.75	596147.50
14	13.44(a)	Providing and laying 100mm dia H.C.I. pipe I.S.I. mark including dffilling joints with lead and spun yarn etc. complete fixed in position under floors.	180.00	Mtr.	93.05	350%	418.73	75370.50
15	13.46(a)	Extra over rate of item Nos. 13.43 and 13.45(a) in case lead joints are used instead of cement joints	230.00	per joint	24.30	350%	109.35	75370.50
16	13.49	Providing and fixing C.I plain bends in position with gutter etc.						
	a)	For 100mm dia	40.00	Each	57.45	350%	258.53	10341.00
17	13.50	Top Khurra 0.6x0.6m for rain water pipe in 25mm thick cement concrete 1:2:4 over 50 mm thick cement concrete 1:8:16.	20.00	Each	12.30	200%	36.90	738.00
18	13.62	Providing and laying four courses of water proofing treatment consisting of first and third course of blown type bitumen grade 85/25 applied hot at 1.6 Kg per sqm for each course and second course of fibre glass R.P tissue and fourth and final course of stone grit 6mm and down size or pea-sized frit spread at 0.006 cum per Sqm including preparation of surface.	220.00	Sqm	31.00	200%	93.00	20460.00

19	13.66	Providding and laying cinder concrete in cement 1:15(1 cement and 15 cinder)on terraced roofs & (Ist storey) laid to slope including consolidating the same.						
		-do second storey	46.00	Cum	214.65	200%	643.95	29621.70
20	14.1-10.26 Based derived rate	Sand filling under floor i/c laying consolidation, compaction & watering etc.	3806	Cum	69.30	340%	304.92	1160525.52
21	14.1	Base course of floor consisting of 100mm thick cement concrete 1:8:16 and 100mm sand or stone filling	1843	Sqm.	36.95	340%	162.58	299634.94
22	14.3	Floating coat of 1.50mm thick neat cement laid in one operation to the topping	420	Sqm	3.70	340%	16.28	6837.60
23	14.4	Screed of 50mm thick cement concrete 1:8:16 to be laid below the topping.						
		-do- (second storey)	1343	Sqm	15.65	340%	68.86	92478.98
		-do- ( third storey)	10		15.95	340%	70.18	701.80
24	14.10	Conglomerate floor 50mm thick cement concrete topping 1:2:4						
		-do- (First storey)	610	Sqm	37.60	340%	165.44	100918.40
		-do- (second storey)	210	Sqm	37.90	340%	166.76	35019.60
25	14.49	Marble stone flooring 20mm to 25mm thick slab including matching grains of marble laid in any pattern as specified over base of 12mm thick cement coarse sand mortar 1:3 and jointed with white cement slurry mixed with pigment to match the shade of marble including rubbing and polishing (Third quality)						
	(a) iii	-do- (First storey)	273		478.60	90%	909.34	248249.82
	(a)iii+note(i)	-do- (second storey)	273		478.90	90%	909.91	248405.43
26	14.62	Kotah stone flooring 34mm to 40mm thick in any pattern as specified over 12 mm thick base of cement coarse sand mortar 1:3 laid and jointed wsith neat cement slurry mixed with pigment to match the shade of						



		stone including rubbing and polishing						
	+note(i)	-do- (First storey)	350	Sqm	201.95	200%	605.85	212047.50
	+note(i)	-do- (second storey)	350	Sqm	202.25	200%	606.75	212362.50
	+note(i)	-do- (third storey)	10	Sqm	202.55	200%	607.65	6076.50
27	14.66	Kotah stone 20mm thick in skirting, fisers of steps, dados pillars and wall facing in any pattern as specified 12mm thick cement coarse sand plaster 1:3 laid and jointed with neat cement slurry, mixed with pigment to match the shade of stone including rubbing and polishing including labour for mixing cramps, dowels and pins etc.					0.00	0.00
	+note(i)	-do- (First storey)	36	Sqm	237.00	200%	711.00	25596.00
	+note(i)	-do- (second storey)	36	Sqm	237.30	200%	711.90	25628.40
	+note(i)	-do- (third storey)	15	Sqm	237.60	200%	712.80	10692.00
28	15.5	12mm thick cement plaster 1:4						
	+note(i)	-do- (First storey)	1850	Sqm	12.70	340%	55.88	103378.00
	+note(i)	-do- (second storey)	1714	Sqm	12.88	340%	56.67	97135.81
	+note(i)	-do- (third storey)	105		13.06	340%	57.46	6033.72
29	15.10	15mm thick cement plaster 1:4 on the rough side of single or half brick						
	15.10+ note	-do- (First storey)	1850.00	Sqm	15.65	340%	68.86	127391.00
	15.10+ note	-do- (second storey)	1650.00	Sqm	15.83	340%	69.65	114925.80
	15.10+ note	-do- (third storey)	105.00	Sqm	16.01	340%	70.44	7396.62
30	15.18	Rough cast exterior cement plaster on walls with a mixture of sand and gravel or crushed stone graded from 2.36mm to 12mm nominal size dashed over and including fresh plaster with cement mortar 1:3 (1 cement 3 sand) mixed with 10% finely ground hydrated lime by volume of rounded angles not exceeding 80mm in girth.					0.00	0.00
	+ note i	-do- (First storey)	1400.00	Sqm	35.40	340%	155.76	218064.00
	+ note i	-do- (second storey)	1400.00	Sqm	35.58	340%	156.55	219172.80
	+ note i	-do- (third storey)	205.00	Sqm	35.76	340%	157.34	32255.52
31	15.52	10mm thick cement plaster 1:4						

	15.52+ note 1	-do- (First storey)	1343.00	Sqm	12.65	340%	55.66	74751.38
	15.52+ note 1	-do- (second storey)	1343.00	Sqm	12.83	340%	56.45	75815.04
	15.52+ note 1	-do- (third storey)	108.00	Sqm	13.01	340%	57.24	6182.35
32	15.77	20mm thick cement plaster damp proof course 1:3 with 2 coats of bitumen at 1.65 Kg per sqm laid hot and sanded:-						
	(a)	Vertical ( do second storey)	150.00	Sqm	30.88	340%	135.87	20380.80
	(b)	horizontal(do second storey)	120.00		29.13	340%	128.17	15380.64
33	15.80	Extra for lining out inrought=h cast/ pebble/ cement plaster and terrazzo finish surfaces lining.	2800.00	Sqm	3.30	340%	14.52	40656.00
34	16.1	Preparation of plywood surface for painting including sand papering the surface and applying with approved quality filler consisting of white lead, linseed oil, varnish and chalk mitti including finishing the surface to required finish complete (with first quality paint)	450.00	Sqm.	4.60	125%	10.35	4657.50
35	16.2	Applying pink primer or aluminium priming coat on wood work including preparation of surface knotting and stopping etc. (with 1st quality paint)	450.00	Sqm.	3.75	125%	8.44	3796.88
36	16.3	Applying two coats excluding priming coat with synthetic enamel paint in all shades on new woodwork or metallic or plastered or concrete surfaces to give an even shade (with first quality paint)	450.00	Sqm.	9.40	125%	21.15	9517.50
37	16.9	Applying priming coat with metal primer on new steel or iron work including preparation of surface with first quality paint)	960.00	Sqm.	3.15	125%	7.09	6804.00
38	16.18	Painting two coats with ready mixed paint for metallic surfaces in all shades on old steel or iron work.	960.00	Sqm.	7.00	125%	15.75	15120.00
39	16.26	Painting two coats with ready mixed exterior paint in all shades on newly plastered or concrete surface of wall.	2150.00	Sqm	13.45	125%	30.26	65064.38
40	16.48	White wash three coats	2800.00	Sqm	1.25	125%	2.81	7875.00

41	16.52	Preparation of plastered surfaces for oil bound distemper including sand papering the surface, applying 1 coat of linseed oil and filling with approved quality filler consisting of white led, linseed oil, warnish and chalk mitti including finishing the surface to the required finish complete.	5860.00	Sqm.	11.15	125%	25.09	14701.
42	16.58	Distempering with washable oil bound distemper (of approved manufacture) two coats over one priming coat on new work.	5860.00	Sqm.	9.10	125%	20.48	119983
43	17.82	Supply and fixing hydraulic door closer, I.S.I. mark with necessary screws, etc. complete						
	C)	I.S.I. designation No. II(size of door 851 mm to 1000mm)	36.00	Each	216.50	250%	757.75	27279.
44	17.83	Providing and fixing sliding bolt with nuts and screws etc, complete-						
	C)	Iron						
	i)	Size 300mmx16mm	50.00	Each	17.45	250%	61.08	3053.
	ii)	Size 250x16 mm	100.00	Each	16.35	250%	57.23	5722.5
45	17.71	Cost of iron fittings, complete for doors and windows such as tower bolts, handels etc. and screws for these fittings (excluding sliding bolts)						
	a)	For single leaf shutter	280.00	Sqm	6.40	250%	22.40	6272.0
	b)	for double leaf shutter	142.00	Sqm	10.15	250%	35.53	5044.5
46	17.87	Providing and fixing 0.50 mm thick aluminium sheet including cost of necessary screws etc complete-	50.00	Sqm	90.55	250%	316.93	15846.2
47	17.93(a)iii - note(i) of 17.18	Factory manufactured solid flush door shutters with block board core as per I.S type phenol formaldehyde synthetic resin hot pressed, conforming to I.S 2202 part I and II, fixed position including iron hinges, screws, chocks/ cleats and stops, etc(excluding the cost of any fittings other than specified above, but including labour for fixing the same in position):-						
	a) iii	35mm thick	283.00	Sqm	436.15	150%	1090.38	308576.13

48	17.90 (b)	Factory manufactured panelled door or glazed window shutter of commercial hard wood such as hollock, champ, chikrassy and chaplash etc. (non-confireous timber other than teak conforming to I.S. specification no. 1003 kiln seasoned) with 100mm wide vertical styles, 150mm wide lock rail, 200mm wide bottom rail & 100mm wide others rail with panelles of 15mm thick, tongued and grooved of commercial hard wood i/c the cost of iron hinges, screws, chocks/cleats, stops, nails etc. complete fixed in position excluding the cost of any fittings other than specified above but including the labour for fixing the same in position						
	b)	Glazed shutter (35 thick)	150.00		424.15	250%	1484.53	222678.75
49	18.12	Wrought iron and mild steel (using angles, flats, square bars, tees and channels) ladders grills, grating frames, window guard iron doors openable of fixed staircase of parapet or any other type of railing, gates and tree guards etc. including cost of screws and welding rods or bolts and nuts complete fixed in position.	120.00	Qtl.	1040.35	325%	4421.49	530578.50
50	18.22	Cold twisted deformed (ribbed/tor steel) bars for RCC works where not including bending, binding and placing in position complete.	2515.00	Qtl.	917.05	350%	4126.73	10378713.38
51	18.30	S/F glass panes including special metal sash putty of approved make						
	(b)	Glass panes 4mm thick, exceeding 40 sq.dm.area	580.00	Sqm	115.40	325%	490.45	284461.00

52	18.34(a)	Pressed steel sheet frames (chowkhats), consisting of 2mm thick steel sheet of the specified section, including iron lugs (hold fasts), iron hinges, conforming to P.W.D. specifications including bolts for fixing stops, lock notch provision for receiving tower bolts and finished with one coat of ready mixed paint red lead non-setting primer of approved quality fixed in position including the cost of cement concrete 1:3:6 for filling in the frame and cement concrete 1:3:6 for lugs complete:-						
	(a)	Door and window frame of size 89 x 50mm with 40mm wide single rebate	2203.00	Mtr.	71.55	325%	304.09	669904.76
<b>Total:</b>								<b>34749615.44</b>
	NS	Providing and fixing aluminium work for doors windows . Ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to plugs and screws or with fixing clips. Or with expansion hold fasterers including necessary filling up of gaps at junctions. at top bottom and sides with required PVC/neoprene felt etc. Aluminium sections shall be smooth, rust free, straight mitred and jointed mechanically wherever required including cleat angle , panelling. C.P. bars/ stainless steel screws, all complete as per architectural drawings and the directions of Engineer -in - charge. ( Glazing and panelling to be paid for separately) Polish of 15 micron (Jindal Co. Make)						
		For fixed portion						
	NS(a)	Anodised aluminium ( anodised transparent or dyed to required shade according to IS:1868, minimum anodiccoating of gradeAC-15)	100	Kg	290.45		290.45	29045.00

	NS(b)	For shutters of doors, window & ventilators including roviding and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of PVC/ neoprene gasket rquired( Fittings shall be paid for separately)	144	Kg	310.45		310.45	44704.80
54	NS	Providing and fixing Glazing in aluminium work for doors sindows . Ventilators and shutters and partitions with PVC/ neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge.(cost of alumunium snap beading shall be paid in basic item)						
		With float glass panes of 5.50mm thickness	22	Sqm	673.55		673.55	8082.60
55		Providing and fixing double action hydraulic floor spring of approved brand and manufacture IS :6315 marked, for doors including cost of cutting floors as required embedding in floors and cover plates with brass pivot and single piece M.S sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge.						
		With stainless steel cover plate	4	Nos	1733.5	each	1733.5	6934.00
56		Providing and laying polished vitrified floor tiles in different sizes(thickness to be specified by the manufacturer) with water absorptions less than 0.08%and conforming to IS:15622 of approved make in all colours and shades laid on 20mm thick cement mortar 1:3 (1Cement 3coarse sand)including grouting the jopints wt5ih white cement and matching pigments						

	etc.complete.(made as per approval of Engineer-in-charge)						
	Size of Tile 60x60cm	1875	Sqm	1000		1000	1875000.00
7	Providing and fixing 18mm thick mirror polished, machine cut for kitchen plateforms, vanity counters facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 with joints treated with.						0.00
	Granite stone	13	Sqm	3000		3000	39000.00
8	Extra for providing edge moulding to granite stone counters including machine plishing to edge to give high gloss finish etc. complete in all respects.	38	Mtr	150		150	5700.00
9	Providing and fixing first class coloured glazed tiles ( of orient/Kajaria make) of size 200x300mm with minimum thickness 5mm in skirting and dado on 12mm thick cement plaster 1:3(1Cement 3Sand) the back of tiles to be buttered with gre(as per approval of Engineer-in-charge)	792	Sqm	550		550	435600.00
10	Providing and laying in floor coloured matt finish ceramic tiles of orient/Kajaria make, size 300x300mm (thickness as per manufacture) without warpage laid on 20mm thick cement mortar 1:3(1 cement 3sand) including grouting the join	180	Sqm	600		600	108000.00
	<b>Grand Total</b>						<b>37301681.84</b>

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**EXECUTIVE ENGINEER**  
 Construction Cell  
 NIT-Kurukshetra

**ESTIMATE OF ELECT. SERVICES FOR DEVELOPMENT OF MCA & MBA BLOCK, NATIONAL INSTITUTE OF TECHNOLOGY, KURUKSHETRA**

**(BASED ON HSR-1988 & LATEST SANCTIONED PREMIUM W.E.F. 01-02-2009)**

Sr. No.	HSR No.	Description	Qty	Unit	Rate	C.P.	Total Rate	Estimate Cost
<b>SUB HEAD-I: INTERNAL ELECTRICAL SERVICES (SCHEDULE ITEMS)</b>								
1	31.36	Wiring in 1.5 sq mm PVC insulated Copper conductor cable in 1.6 mm thick conduit pipe						
	(I)	<b>Fan point</b>						
	(b)	Medium Point	65	Each	524.00	10%	576.40	3746
	(c)	Long Point	122	Each	733.00	10%	806.30	9836
	(II)	<b>Light Point</b>						
	(a)	Short Point	45	Each	251.00	10%	276.10	1242
	(b)	Medium Point	103	Each	433.00	10%	476.30	4905
	(c)	Long Point	289	Each	639.00	10%	702.90	20313
	(III)	Twin Control light point with 2 way 5 amp. Single pole switch						
	(c)	Long Point	2	Each	726.00	10%	798.60	159
	(VII)	3 pin 5 amp. Plug point including earthing the 3 <sup>rd</sup> pin etc.						
	(a)	Short Point	57	Each	283.00	10%	311.30	1774
	(c)	Long Point	20	Each	672.00	10%	739.20	1478
	(VIII)	3 pin 15 amp. Plug point including earthing the 3 <sup>rd</sup> pin etc. with 4 sq mm size						
	(b)	Medium point	6	Each	667.00	10%	733.70	440
	(c)	Long point	56	Each	970.00	10%	1067.00	5975
2	31.40	Supply and erection of PVC unsheathed Copper conductor cable single core 1100 volts grade in pipe of suitable size excluding cost and erection of pipe						
	(i)	Cable Size 1.5 sq mm (3/0.81 mm)	3591	Meter	10.20	10%	11.22	40291
	(iii)	Cable Size 4.0 Sq mm (Normal Power) (7/0.85 mm)	1945	Meter	24.50	10%	26.95	52418
	(iv)	Size 6.0 Sq mm (7/1.05 mm)	3606	Meter	35.60	10%	39.16	141211
	(v)	Size 10.0 Sq mm (7/1.35 mm)	1704	Meter	50.00	10%	55.00	93720
	(vii)	Size 25.0 Sq mm (7/2.14 mm)	888	Meter	134.70	10%	143.17	131575
3	31.41	Supply & erection of double door sheet steel enclosure distribution board suitable for MCBs and ELCBs etc. recessed in wall including bonding to earth with all labour and material required to complete the job in all respect upto to the entire satisfaction of the Engineer-in-charge of the work.						
	(vi)	8-way, 1P&N (Horizontal) (8+24)-	18	Each	2100.00	10%	2310.00	41580



	(vii)	12-way, TP&N (Horizontal) (8+36)	2	Each	2600.00	10%	2860.00	5720
4	31.16	Supply and erection of blanking sheet in existing distribution board	145	Each	2.25	60%	3.60	522
5	31.17	Supply and erection of miniature circuit breaker/ isolator 240/415 V in the existing distribution board including making necessary connection:-						
	(a)	Miniature Circuit Breakers of 9 K.A. breaking capacity						
	(ii)	6 amp to 32 amp (SP) Havell's/ Standard	267	Each	95.00	30%	123.50	32975
	(iii)	40 amp to 63 amp. (TPN) Havell's/ Standard	20	Each	499.00	30%	648.70	12974
	(ii)	6 amp to 32 amp (SPN) Havell's/ Standard	3	Each	197.00	30%	256.10	768
6	31.42	Supply & erection of double pole/ four pole Residual current circuit breaker (RCCB/ELCB) suitable for operation on 240/415V, 5Hz AC supply installed in existing sheet steel enclosure including making necessary connections and bonding to earth with all labour and material required to complete the job in all respect upto to the entire satisfaction of the Engineer-in-charge of the work.						
	(xiv)	40 A /415V FP ELCB with 100 mA sensilivity	21	Each	1600.00	10%	1760.00	36960
	(xvi)	63 A /415V FP ELCB with 100 mA sensitivity	36	Each	1900.00	10%	2090.00	75240
7	31.21	Supply and erection of pipe for wiring purposes including bends inspection boxes etc. where necessary and painting as required:-						
	(xxii)	Heavy gauge welded conduit pipe 20 mm dia 1.60 mm thickness flushed	2602	Meter	16.30	175%	44.83	116635
	(xxii)	Heavy gauge welded conduit pipe 25 mm dia 1.60 mm thickness flushed	3724	Meter	19.60	175%	53.90	200724
	(xxii)	Heavy gauge welded conduit pipe 32 mm dia 1.60 mm thickness flushed	300	Meter	24.20	175%	66.55	19965
8	31.22	Earthing						
	(i)	Earthing with G.I. earth pipe 4.5 m long and 40 mm dia with masonry enclosures on the top, etc.	8	Each	378.00	180%	1058.40	8467
	(ii)	Extra for using salt & charcoal/coke for pipe earth electrode as required.	8	Each	125.00	180%	350.00	2800

	(iii)	Earthing with G.I. earth plate 600 mm x 600 mm x 6 mm thick including accessories and providing masonry enclosures with cover plate having locking arrangement and watering pipe etc. (but without charcoal or coke and salt) complete as required	8	Each	453.00	180%	1268.40	10147
	(v)	Extra for charcoal or coke and salt for G.I. plate or copper plate earth electrode	8	Each	186.00	180%	520.80	4166
	(xi)	Pdg. and fixing 25 mm x 5 mm G.I. Strip in 40 mm dia G.I. pipe from earth electrode as required	30	Meter	65.10	180%	182.28	5468
	(xv)	Pdg. and fixing 25 mm x 5 mm GI strip on surface or in recess for connections etc. as required with all labour and material	10	Meter	20.30	180%	56.84	568
	(xvi)	Pdg. and fixing 4.00 mm dia G.I. wire on surface or in recess for loop earthing as required	1934	Meter	3.40	180%	9.52	18412
	(vii)	Supplying & Laying 6 SWG G.I Wire 0.5 metre below ground level as conductor earth electrode including trimbles, soldering, etc as required.	10	Meter	3.50	180%	9.80	98
9	31.28	Supply and erection of suitable compression type brass Cable glands for underground Cable:-						
		(ii) 10 Sq mm to 16 Sq mm Cable 2 to 4 Core	60	Each	9.20	140%	22.08	1325
		(iv) 70 Sq mm to 95 Sq mm Cable 3 to 3 1/2 Core	4	Each	22.50	140%	54.00	216
		(v) 120 Sq. mm to 185 Sq.mm cable 3 to 3 1/2 Core	4	Each	28.60	140%	68.64	275
		(iii) 25 Sq mm to 50 Sq mm Cable 2 to 4 Core	12	Each	16.80	140%	40.32	484
10	31.18 (xxvi)	Erection of hexagonal M.S. box 1.60 mm thick having each side 8 cms, 7.5 cms deep, top covered with M.S. lid by means of screws including 10 mm dia 30 cm long mild steel rod made into suitable suspension hook and erected in R.C.C. slab of erection of fan, the bottom covered with 3 mm thick bakelite sheet with suitable holes, painting etc. complete with all labour and material required to complete the job.	165	Each	26.30	200%	78.90	13019
11	31.35 (vii)	Supply and erection of 75 mm x 75 mm x 60 mm deep M.S. box for telephone, & Computer System including 2 pin 5 amp. socket including	194	Each	18.00	130%	41.40	8032

		cost of bakelite sheet						
12	31.47	Supply & Erection of MS Box of size 200 mm x 150mm x 100 mm deep covered with bakelite sheet including cost & flushed erection of 32 A DP Switch, 15 A Socket and switch with necessary connections complete in all respect upto the entire satisfaction of Engineer-in -charge of the work.	103	Each	350.00	10%	385.00	39655
		<b>TOTAL FOR SCHEDULED ITEMS</b>						<b>1615143.92</b>

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**EXECUTIVE ENGINEER**  
 Construction Cell  
 NIT-Kurukshetra

**Construction of MBA & MCA Block-A Two Storey framed structure Building at NIT, KURUKSHETRA  
(BASED ON HSR-1988 & LATEST SANCTIONED PREMIUM W.E.F. 01-02-2009)**

Sr. No.	HSR No.	Description	Qty.	Unit	Rate (in Rs.)	C.P.	Total Rate (Rs.)	Amount (in Rs.)
<b>SUB PART-III: INTERNAL PH SERVICES (SCHEDULE ITEMS)</b>								
1	30.4 1	P/F in position best Indian make lavatory Suites						
		White						0
	(iv)	Size 550mmx400mm with one no. tap	36	Each	407.00	250%	1424.50	51282
2	30.4 5	Providing and fixing in position best Indian make chromium plated brass 2nd tap for lavatory suite.	36	Each	92.00	250%	322.00	11592
3	30.4 8	P/F in position 32mm diameter G.I.waste pipe embedded in wall	32	Each	98.00	250%	343.00	10976
4	30.5 0	P/F in position best Indian make C.P. brass bottle traps 32mm diameter	32	Each	92.00	250%	322.00	10304
5	30.6 7	P/F in position best Indian make paper holder fixed into C.P. including cutting & making good the walls etc.						
	(a)	C.P. brass	34	Each	27.50	250%	96.25	3273
6	30.6 9	P/F in position glass shelf fixed in with rawl plugs with C.P. brass screws complete including cutting & making good the walls etc.						
	(a)	With C.P. brass bracket and guard rail						
	(i)	(i) 600mm x 125m	32	Each	72.50	250%	253.75	8120
7	30.7 1	P/F in position best Indian make bevelled edge 5.5mm thick mirror fixed in position by means of 4 nos. C.P. brass screws and washers complete including cutting and making good the walls etc.						
	(a)	Indian make						
	(i)	600 mm x 450mm	32	Each	107.00	250%	374.50	11984
8	30.7 4	Providing and fixing in position super quality 65 mm i/d opening CP brass dome type hinged grating weighting about 750 gms. Fixed in cement mortar 1:2 complete in all respects (as required by the Engineer-in-charge).	40	Each	67.50	250%	236.25	9450

9	30.7 5(a)	Providing & fixing in position 15mm i/d C.P. brass bib cocks of best quality (as required by the Engineer-in-charge)						
	(a)	Bib cock long body	36	Each	116.00	250%	406.00	14616
10	30.7 6	P/F in position C.P. brass stop cocks (as approved by Engineer-in-charge)						
	(a)	15mm stop cocks						
	(ii)	Concealed stop cocks with flange	62	Each	130.00	250%	455.00	28210
11	30.8 4	P/F in position HCI soil, waste, vent pipes to ISI specification or any other reputed firm including cutting & wastage etc. & cutting holes in walls, roofs or floor etc. and making good the floor & wall but excluding cost of lead jointing.						
	(a)	100mm internal diameter	300	Mtr.	97.50	300%	390.00	117000
	(b)	75mm internal diameter	600	Mtr.	83.00	300%	332.00	199200
12	30.8 7	Providing lead caulked joints to HCI pipes & specials conforming to ISI specification of ELC or any other reputed firm including cost of lead yarn, fuel & tools etc.						
	(a)	100mm internal diameter (1.13 kg)	180	Each	33.50	225%	108.88	19598
	(b)	75 mm internal diameter (0.91 kg)	260	Each	27.50	225%	89.38	23238
13	30.8 8	Providing and fixing in position MS or Heavy flat iron clamps made out of MS flat not less than 5 mm of the approved design for fixing CI Soil waste vent or anti pipes to walls complete in all respects including cutting and making good the walls and floors etc. and painting						
	(a)	For 100 mm internal diameter pipes	120	Each	12.50	300%	50.00	6000
	(b)	For 75 mm internal diameter pipes	90	Each	11.00	300%	44.00	3960
14	30.8 9	P/F HCI floor trap ISI marked of the self-cleaning design with C.P. brass hinged grating with or without vent arm & including cement concrete 1:2:4 complete in all respects						
	(b)	With 75mm internal diameter outlet	56	Each	105.00	300%	420.00	23520

15	30.9 0	PROVIDING AND FIXING IN POSITION HCI 50mm INTERNAL DIAMETER OUTLET PLAIN NAHAN TRAP ISI Marked of the self cleaning design with CP BRASS HINGED GRATING WITH FRAME WEIGHING 6.80 KG EACH FIXED complete as fully described in item no. 30.89 above.						
	(b)	75 mm i/d outlet plain Nahani Trap.	16	Each	100.00	300%	400.00	6400
16	30.9 1	P/F in position HCI specials for soil waste vent pipes to ISI specification including cutting holes in walls & making good but excluding cost of lead joints						
	(a)	For 100mm internal diameter pipes						
	(i)	Heal rest	26	Each	58.00	300%	232.00	6032
	(ii)	Double junctionwith door 100mmx100mmx100mmx100mm	24	Each	99.00	300%	396.00	9504
	(iii)	Pass over pipe	24	Each	86.50	300%	346.00	8304
	(vi)	Single junction with door 100x100x100mm	24	Each	76.50	300%	306.00	7344
	(v)	Double junction plain 100x100x100mm	2	Each	60.00	300%	240.00	480
	(vi)	Single junction plain 100x100x100mm	4	Each	53.00	300%	212.00	848
	(vii)	Single junction with door 100x100x50mm	16	Each	39.50	300%	158.00	2528
	(viii)	Double junctionwith door 100mmx100mmx50mmx50mm	16	Each	36.50	300%	146.00	2336
	(ix)	Single junction with door 100x100x50mm	20		27.50	300%	110.00	2200
	(b)	For 75mm internal diameter pipes						
	(i)	Heal rest	32	Each	39.50	300%	158.00	5056
	(ii)	Single junctionwith door 75mmx75mmx75mm	22	Each	59.00	300%	236.00	5192
	(iii)	Bend with door	24	Each	42.00	300%	168.00	4032
	(vi)	Bend plain	22	Each	39.50	300%	158.00	3476
	(v)	Terminal guard	2	Each	27.50	300%	110.00	220
	(vi)	Cowls	2	Each	28.00	300%	112.00	224
	(vii)	Collars	18	Each	22.50	300%	90.00	1620
17	30.9 5	Cutting chase in brick wall in cement for embedding G.I. or HCI pipe lines & making good the same						
	(a)	Size 75x75mm	172	Mtr.	6.00	250%	21.00	3612

18	30.1 01	Painting HCI soil waste and vent pipes and fittings with black bitumastic ordinary paint of approved manufacture two coats on new work.						
	a)	(a) 100 mm internal diameter	240	MTR	1.85	250%	6.48	1554
	b)	(b) 75 mm internal diameter	218	MTR	1.35	250%	4.73	1030
19	30.1 10	P/F in position automatic brass ball valves in tanks						
	(b)	With plastic ball						
		(iii) 15mm diameter	10	Each	39.00	250%	136.50	1365
20	30.1 14	P/F in position Gully traps fixed in cement concrete 1:4:8 with HCI grating 150x150mm CI cover weighing approximately 7.26 kg & frame clear opening 300 x 300mm and chamber including cost of brick work 1:5 cement concrete 1:8:16 and C.C. 1:2:4 in coping						
	(b)	100mm internal diameter HCI gully traps	22	Each	208.00	300%	832.00	18304
21	30.1 15	Providing and fixing in position best Indian make vitreous china ware channel of size 600 mm x 150 including laying and fixing in cement concrete 1:2:4 complete as required by the Engineer-in-charge.						
	(i)	White	20	Each	92.00	250%	322.00	6440
22	28.2 4	Cutting holes upto 23cm through brick work in cement wall for pipes and making good						
	(a)	11.43cm thickness of walls	16	Each	14.00	250%	49.00	784
	(b)	22.86 cm. thickness of walls	16	Each	20.35	250%	71.23	1140
23	29.8 4	Constructing brick masonry inspection chamber upto 60 mtr.depth in cement mortar 1:5 cement concrete 1:2:4 benching, 12mm thick cement plaster, RCC 1:2:4 slab 100mm thick with with 455x455 mmx455x610mm Inside light duty GI inspection chamber cover & frame with 3 coats of black bitumastic paint.						
	(c)	Size 600x900mm inside	18	Each	690.00	375%	3277.50	58995
24	29.8 5	Extra for every 0.30 mts. depths of inspection chamber						

	(c)	600mmx900mm	18	Each	139.00	375%	660.25	11885
25	6.8	Excavation for pipelines running under pressure in trenches and pits in open areas where disposal of surplus earth is done alongwith the alignment and restoration of unmetalled surface to the original condition						
	(a)	Without timbering and shoring upto 1.5 meters depth	225	100 Cum	1030.00	300%	4120.00	9270
26	6.10	Excavation of trenches in street lanes or in open area for storm sewer, sewers running by gravity & man holes to full depth and removal of surplus soil upto to a lead of 1Km in ordinary soil						
	(a)	For depth of excavation not exceeding 3 mts. below ground level	195	100 Cum	1189.00	300%	4756.00	9274
27	10.3 9	Cement concrete 1:4:8 with stone aggregate 40mm nominal size in foundation and plinth	46	Cum	403.10	340%	1773.64	81587
28	10.4 1	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in foundation and plinth	25	Cum	615.60	340%	2708.64	67716
29	10.5 9	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in in first storey upto 4 metres above plinth level						
	10.5 0+ note (v)(b)	-do- (first storey)	1	Cum	621.85	340%	2736.14	2736
	10.5 0+ note (v)(b)	-do- (second storey)	2	Cum	624.40	340%	2747.36	5495
	<b>TOTAL SCHEDULE ITEMS:</b>							<b>899304.15</b>
	<b>SUB PART-IV: INTERNAL PH SERVICES (NON-SCHEDULE ITEMS)</b>							
1	NS	Providing & fixing 1 white vitreous (Europeam type ) water closet litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I. brackets, 40mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete including painting oos fittings and brackets, cutting and making good the walls and floors wherever required.	36	Each	5000.00		5000.00	180000



2	N.S	Providing & laying Cement Concrete 1:2:4 75mm in bed and around C.I. Soil waste pipe 100mm and 75mm i/d under floor including centering and shuttering where required.						
	(a)	100mm dia	135	Mtr.	300.00		300.00	40500
	(b)	75 mm dia	160	Mtr.	240.00		240.00	38400
3	NSR	Providing, laying, jointing glazed stoneware pipes grade A' with stiff mixture of cement mortar in the proportion of 1:1 (1 cement, 1 fine sand) including testing of joints etc. complete.						
		150mm i/d	100	Mtr.	150.00		150.00	15000
	(b)	200mm i/d	250	Mtr.	230.00		230.00	57500
4	NS	Providing and fixing of G.M. Peat valves heavy patterns with hand wheels ISI marked to GI pipe lines.						
	(a)	25mm i/d	20	Each	350.00		350.00	7000
	(b)	40mm i/d	20	Each	900.00		900.00	18000
	(c)	50mm i/d	20	Each	1250.00		1250.00	25000
5	NSR	Providing, testing and fixing in position G.I. pipe 'B' class medium duty in ground including cost of specials such as elbow, bend, tees etc. cutting, threading complete in all respect to the satisfaction of Engineer-in-charge.						
		15 mm i/d	400	Mtr.	120.00		120.00	48000
		20 mm i/d	250	Mtr.	144.00		144.00	36000
		25 mm i/d	200	Mtr.	190.00		190.00	38000
		40 mm i/d	100	Mtr.	250.00		250.00	25000
		50 mm i/d	300	Mtr.			300.00	90000
		80 mm i/d	150	Mtr.	480.00		480.00	72000
6	NSR	Extra for providing and fixing union coupling to G.I. pipe lines including cost of union complete						
		15mm i/d	40	each	50.00		50.00	2000
		20mm i/d	25	each	78.00		78.00	1950
		25mm i/d	20	each	100.00		100.00	2000
		40mm I/d	10	each	180.00		180.00	1800
		50mm I/d	10	each	200.00		200.00	2000
		80mm I/d	5	each	288.00		288.00	1440

7	Providing and stringing S & S centrifugally cast (spun) iron pipes (Class LA) complete in trenches to the approval of Engineer-in-charge.						
	80mm i/d	50	Mtr.	925.00		925.00	46250
8	Supplying and fixing ISI marked sluice valve double flanged with brass spindle complete in all respect to the approval of Engineer-in-charge. 80 mm	1	Each	3000.00		3000.00	3000
9	Const. of sluice valve haudi 1m x 1m x 1m with brick work 1:5 cement sand mortar finished with 12.5mm cement plaster 1:4 including RCC 1:2:4 slab with reinforcement, surface box complete in all respect to the approval of Engineer-in-charge.	1	Each	3000.00		3000.00	3000
10	Providing and fixing in position H.D.P.E. water tanks complete with inlet, outlet, scour and overflow flanges including masonry based underneath as approved by the Engineer-in-charge of different capacity tanks complete in all respect.						
	Capacity upto 2000 litres	20000	Ltrs.	7.00		7.00	140000
11	Construction brick masonry manhole in cement mortar 1:4 (1cement : 4 coarse sand) R.C.C. top slab with 1:2:4 mix (1cement:2coarse sand: 4 graded stone aggregate 20mm nominal size), foundation concrete 1:4:8mix (1cement:4coarse sand :8 graded stone aggregate 40mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1cement :3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1cement : 2coarse sand :4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement complete as per standard design ;						

		Inside Size 120x90cm and 90 cm deep including SFRC Cover with frame (Heavy duty) 580mm internal diameter					
		With Sewer bricks	1	Each	9000.00	9000.00	9000
12	NSR	Extra for depth for manholes					
		Size 120x90cm					
		With Sewer bricks	2	Mtr.	2500.00	2500.00	5000
13	NSR	Making sewer connection with the existing sewer line	1	Each	1000.00	1000.00	1000
14	NSR	Providing M.S. foot rests including fixing in manholes with 20x20x10cm cement concrete blocks 1:3:6 (1cement: 3 coarse sand: 6 graded stone aggregate 20mm nominal size) as per standard design :					
		With 20x20mm square bar	30	Each	150.00	150.00	4500
		<b>TOTAL NON-SCHEDULE ITEMS:</b>					<b>913340.00</b>
		<b>SUB PART-III: INTERNAL PH SERVICES (SCHEDULE ITEMS)</b>					<b>899304.15</b>
		<b>SUB HEAD-IV : INTERNAL PH SERVICES (NON SCHEDULED ITEMS)</b>					<b>913340.00</b>
		<b>Grand Total:</b>					<b>1812644.15</b>
	Note :-						
		All china ware should be of CERA/HINDWARE/HINDUSTAN PERRYWARE Make 1st quality or as directed by the Engineer-In-Chief					
		All C.P. fittings/fixtures should be of SEIKO/PARKO/ Chilly make.					
		All PIPE SHOULD BE JINDAL / TATA MAKE or as directed by the Engineer-In-Chief					

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EXECUTIVE  
ENGINEER  
Construction Cell  
NIT-Kurukshetra

**Item No.11.10 To consider & approve cost estimate for provision of Acoustic treatment i.e false ceiling and wall paneling and Lighting Audio visual aids in 12 Nos. Lecture Hall NIT, Kurukshetra.**

The rough cost estimate for the provision of Acoustic treatment i.e false ceiling and wall paneling and Lighting Audio visual aids in 12 Nos. Lecture Hall is essentially required.

The matter has also been discussed in the meeting of the Institute under the Chairmanship of Dean (P&D), who recommended provision of Acoustic treatment i.e false ceiling and wall paneling and Lighting Audio visual aids in 12 Nos. Lecture. The rough cost estimate amounting to Rs.89 Lac has been prepared by J.E (C), A.E (C) & scrutinized by construction cell.

The B&WC is requested to consider & approve the rough cost estimate amounting to Rs.89 Lac for the above work.

**Detailed Estimate for providing Acoustic treatment in 12 No. Lecture Halls at NIT, Kurukshetra.**

1. Providing & fixing false ceiling with grooves with 12mm to 15mm thick 600mm x 600mm best quality mineral perforated fibre tiles of approved make (Armstrong) fixed on M.S steel runners frames i/c cost of screws angles, cleats, rowel plugs i/c hangers with tapping and painting etc complete in all respect as per approved by Engineer-in Charge.

$$\begin{aligned} 8 \times 12.50 \times 11.94 &= 1194 \text{ Sqm} \\ 4 \times 16.00 \times 11.77 &= 753 \text{ Sqm} \end{aligned}$$

1947  
Sqm

@ Rs. 1000 per Sqm. = **19,47,000/-**

2. Providing & fixing wall paneling with perforated 12 mm thick best quality fibre tiles fixed on M.S steel runners frames i/c cost of screws, angles, cleats rowel plugs etc. complete in all respect i/c 24 grade 50 mm wool on back side i/c 1.2 mm thick laminated board upto 1.0 m height & balance Armstrong Sheet i/c tapes on joint complete in all respect as per approval of Executive -in-Charge.

$$\begin{aligned} 4 \times 2 \times 16 \times 3.50 &= 448.00 \text{ Sqm} \\ 4 \times 2 \times 11.77 \times 3.50 &= 327.60 \text{ Sqm} \\ 8 \times 2 \times 12.50 \times 3.50 &= 668.64 \text{ Sqm} \\ 8 \times 2 \times 11.94 \times 3.50 &= 668.64 \text{ Sqm} \end{aligned}$$

**Total 2144.24 Sqm**

Door & window deduction:-

$$\begin{aligned} \text{Door} &= 24 \times 1.50 \times 2.7 = 97.20 \text{ Sqm.} \\ \text{Window} &= 104 \times 0.3 \times 1.00 = 31.20 \text{ Sqm.} \end{aligned}$$

128.40

Balance = 2015.84 Sqm.

@ Rs. 1200 Per Sqm. 24,19,000/-

2500000/-

2000000/-

Furniture

Audio ,Video & Lighting

$$\text{Total } 1947000 + 2419000 + 2500000 + 2000000 = 8866000/-$$

**Say Rs.**

**89,00,000/-**

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**EXECUTIVE ENGINEER**  
**Construction Cell**  
**NIT-Kurukshetra**

**Item No.11.11 To consider & approve revised cost estimate for the construction & extension of Fifth storey Additional Girls Hostel (300 Capacity) at NIT, Kurukshetra.**

The construction work of Additional Girls Hostel (300 Capacity) is already under progress. The work of this hostel is allotted for four storeys but it has been designed for five storeys. To meet out the future requirement, this hostel is not sufficient to accommodate the new students. It is therefore, necessary to construct additional 5<sup>th</sup> storey of this hostel. The rough cost estimate has been prepared by A.E (C), J.E (C) & scrutinized by construction cell amounting to Rs. 210 Lac.

This issue was placed before the committee on 16.07.09 of Institute held under the Chairmanship of Dean (P&D) and recommended to construct additional 5<sup>th</sup> storey on this building of Girls Hostel by same contractor on the allotted rates with same terms and conditions.

The B & WC is requested to consider & approve the rough cost estimate amounting to Rs. 210.00 Lac for the construction & extension of 5<sup>th</sup> Storey Additional Girls Hostel (300 Capacity) at NIT, Kurukshetra.

**Rough cost estimate for the construction of Additional Girls Hostel (300 Capacity) 5<sup>th</sup> storey at NIT, Kurukshetra.**

**A. Civil Works**

Plinth Area of Building	=	2264 Sqm.
@ Rs. 7540/Sqm	=	17070560.00
Deduction Foundation 10%	=	(-) 1707056.00
Total	=	15363504.00

**B. Public Health Work**

15% of Total cost of Civil Work

i.e. Rs. 15363504.00 = 2304525.00

**C. Electrical Installation**

15% of Total cost of Civil Work

i.e. Rs. 2304525.00 = 2304525.00

Total (A + B + C) = 19972554.00

Add 3% contingency charges = 599177.00

Add 2.25% consultancy charges = 449382.00

**Total cost of Building** = **21021113.00**

**Say Rs. = 210.00 Lacs.**

-----Sd-----  
EXECUTIVE  
ENGINEER  
Construction Cell  
NIT-Kurukshetra

**Item No.11.12 To consider & approve the rough cost estimate for the Construction of 440 Seaters New Boys Hostel at NIT, Kurukshetra.**

The Institute has constructed & completed 3 (Three) Hostel buildings such as post-Graduate Hostel building 350 seaters boys, New P.G. Hostel building 350 seaters capacity & 350 seaters boys Hostel for U.G. students at NIT Kurukshetra & the work of additional Girls Hostel (300 capacity) is in progress.

Due to increase in intake in B.Tech courses & also introduction of new M.Tech. Course, MBA / MCA courses and incrcasc in seats because of OBC, the construction of additional Hostel is required so as to accommodate newcomers. The matter was placed before the High Power Committee under the Chairmanship of Dean (P&D) held on 16.07.09, the Committee recommends the construction of a new P.G hostel with same design and drawings like new P.G, U.G hostel but with one more additional floor (i.e. 5<sup>th</sup> storey).

The rough cost estimate has been prepared by J.E (C), A.E (C) & scrutinized by this office & placed here to amounting to Rs. 22.37 crores. B&WC Committee is requested to consider and approve the rough cost estimate Rs. 22.37 crores for this work.



**Rough cost estimate for the construction of 440 Seaters New Boys Hostel at NIT, Kurukshetra.**

**A. Civil Works**

Plinth Area of Building =	14260 Sqm.	
@ Rs. 7540 /Sqm =		107520400.00
3 No. Extra storey of Building	14260 Sqm.	
@ Rs. 3x875/ Sqm =		37432500.00
Extra for Raft foundation =	14260 Sqm	
@ Rs. 1300/ Sqm		18538000.00
<b>Total =</b>		<b>163490900.00</b>

**B. Public Health Work**

15% of Total cost of Civil Work		
i.e. Rs. 163490900.00 =		24523635.00

**C. Electrical Installation**

15% of Total cost of Civil Work		
i.e. Rs. 163490900.00 =		24523635.00
Total (A + B + C)	=	212538170.00
Add 3% contingency charges	=	6376145.00
Add 2.25% consultancy charges	=	4782109.00
<b>Total cost of Building</b>	<b>=</b>	<b>223696424.00</b>
<b>Say Rs.</b>	<b>=</b>	<b>22.37 Crore.</b>

-----Sd-----  
EXECUTIVE  
ENGINEER  
Construction Cell  
NIT-Kurukshetra

**Item No. 11.13. To consider & approve additional amount of 1% Labour Cess in the Construction Work of 350 Seaters Boys & New P.G 350 seaters boys hostel.**

The Construction work of 350 seaters Boys Hostel was allotted to M/s Allied Engineers, Gharaunda vide this office letter no. D / 3048 dated 17.04.07. There was no specific clause of levy of 1% Labour Cess in D.N.I.T. During inspection, A.G audit party, Haryana visited this office on 14.01.09 & raised a audit para, where in they mentioned that NIT, Kurukshetra has not deducted 1 % Labour cess from the bills of contractors. To drop a A.G. Audit Para, NIT deposited the amount of 1% Labour cess with Haryana Labour cess Board by making recovery from the security amount of contractor. M/s Allied Engineers, Gharaunda made various representations in this regard & requested for refund/ credit of their security amount. Various meetings were held on this issue, the latest meeting held on 16.06.09 the committee resolved as under : -

As per directions contained in Labour Commissioner cum-Secretary to Haryana. Building & other Construction Worker Welfare Board, 30 Bays Building, Sector-17, Chandigarh circular letter No. 5162-95 dated 02.08.07, for inviting tenders should make a provision for deduction of labour cess @1% of the cost in respect of future contracts and this should be included in the estimated cost of works. However, in respect of old contracts, where there is no such provision of deduction of 1% labour cess & not provided in the agreement, in such cases the estimates be revised by including 1% labour cess and such revised estimates be put up before the ensuing meeting of B&WC for approval to regularize the matter.

At this stage, the specific case of M/s Allied Engineer came up for discussion whereby the said agency has repeatedly made representations regarding refund of Rs. 22.80 Lac which comprised of Rs. 11.95 Lac & Rs 10.85 Lac deducted out of security relating to the work of 350 seaters New PG & Boys Hostels at NIT Kurukshetra. The agency has in support of his claims appended the above photocopy of Labour Commissioner-cum-Secretary to Haryana. Building & other Construction Workers Welfare Board, letter no. 5162-95 dated 02.08.07, where in it is mentioned that the concerned department where building and other constructions works are being carried out through contractors, where new contracts should be awarded after making provision for deduction 1% Labour cess and in respect of old contracts where there is no such provision, the department should add 1% of the cost to the bills on this account and transfer these proceeds of cess to the Board.

Since there was a need for settlement of audit para, deductions were made and remitted to the labour department. As regards remittance of 1% labour cess concerning various works, its remittance to Labour Board is in order, however, the said amount is required to be recouped to the agencies.

The Committee decided unanimously that the estimates where this cess was not included previously, such estimates be revised by incorporating 1% Labour Cess & obtain the approval in the ensuing meeting of B&WC.

Members told D.R (A/cs) that after the approval of these estimates, the amount may be credited to the accounts of agencies accordingly. so that there remains no chance for any prolongation of dispute.

Now, both the works of hostel building have been completed & the approval of B&WC is required to add the amount of 1% Labour Cess. Though, it is important to state that B&WC approved a sum of Rs. 12.50 crore & Rs. 12.04 crore for the construction of 350 Seater Boys hostel & 350 Seater New P.G. hostel respectively. The expenditure incurred on both these works is within the approved amount as under: -

1.	Construction of 350 Seaters Boys hostel, NIT, Kurukshetra.		
i)	Civil Work	=	10,0089875.00
ii)	Public work	=	4752492.00
iii)	E.I	=	3683123.00
	Total Expenditure Incurred	=	10,8525490.00
	Addition: 1% Labour Cess	=	1085255.00
	<b>Total</b>	=	<b>10,9610745.00</b>
2.	Construction of New P.G. 350 Seaters Boys hostel, NIT, Kurukshetra.		
i)	Civil Work	=	10,8675812.00
ii)	Public work	=	3253571.00
iii)	E.I	=	5250155.00
	Total Expenditure Incurred	=	11,7179538.00
	Addition: 1% Labour Cess	=	1171795.00
	<b>Total</b>	=	<b>11,8351333.00</b>

The amount of 1% Labour Cess comes as under: -

1)	1% Labour cess 350 Seaters Boys Hostel	=	1085255.00
2)	1% Labour Cess New P.G. Hostel	=	1171795.00
	<b>Total</b>	=	<b>2257050.00</b>

The B & WC is requested to approve & allow to charge the amount of 1% labour Cess i.e. Rs. 2257050/- to both these work amounting to Rs. 2257050 & credit may also be allowed to contractor's account.

**Item No.11.14    To consider & approve cost estimate for providing campus Lighting in Hostel blocks of NIT, Kurukshetra.**

The Institute has already completed the construction work of New P.G. 350 Seaters Hostel & U.G 350 Seaters Hostel. To avail it's utility, the work of external campus lighting is essentially required.

Placed below the rough cost estimate for this work amounting to Rs. 11.33 Lac prepared by Architect namely M/s Saakaar Foundation Sector-17-D Chandigarh, duly scrutinized by A.E (E) & Prof. I/C (EM).

The Worthy Director is requested to accord his kind approval to put up the matter in B & WC meeting, scheduled to be held on 28.07.09.

It is therefore, requested that B&WC may consider & accord approval for Rs.11.33 lacs for this work.

# SAAKAAR

FOUNDATION FOR CHILDREN

ARCHITECTS-ENGINEERS-PLANNERS PHONE 011-261065 301065  
S.O. 5355 3RD FLOOR, BEAR CPO 142 011-261065 301065  
SECTOR 17 D, CHANDIGARH 160017 INDIA FAX 011-261065 301065

CE/2009/MT-21

June 30, 2009

To  
Sh. D. K. Kaushik  
Assistant Engineer (Elect.)  
National Institute of Technology  
Kurukshetra

Subject: Estimate for Providing Campus Lighting in Hostel Blocks of NIT,  
Kurukshetra.

Dear Sir,

As desired by you, we are sending you estimate for external campus lighting.

Kindly do the needful.

Thanking you,

Yours sincerely,

*(Signature)*  
(Gurinder Bahga)  
Architect  
For SAKAAR Foundation


*These are lighting fixtures  
installed in the hostel blocks  
of NIT Kurukshetra. The  
cost of these fixtures is  
Rs. 1.50 Lakhs.*

*(Signature)*  
16/7/09

*(Signature)*

**ESTIMATE FOR PROVIDING CAMPUS LIGHTING  
IN HOSTEL BLOCKS OF MIT KURUKSHETRA  
GENERAL ABSTRACT**

1.	Total of scheduled items	6,43,35.92
2.	Total of non-scheduled items	426130.00
	Total:	1109476.92
	Add 3% for contingency and petty establishment charges	33284.31
	Grand Total:	1133491.23
	Pay Rs.	113,000.00

  
**SAAKAAR FOUNDATION**  
 ARCHITECTURE & CIVIL ENGINEERING  
 SCO B-35 (B-35) 1st Floor, P.O. Box 100,  
 Meerut G.P.O., U.P. 221001

# ESTIMATE FOR PROVIDING CAMPUS LIGHTING IN HOSTEL BLOCKS OF MIT KURUKSHETRA

## Part A : Schedule-M Items

Sr. No.	Ref. of HSR	Description	Qty	Unit	Rate (Rs.)	C.P.	Total (Rs.)	Amount (Rs.)
1.	31.12 (c)	Moulded case circuit breakers Supply and erection of moulded case circuit breaker on wall or on existing pedestal including bonding to earth and necessary connection;						
	(f)	15A to 60A 415V 10KA 3 Phase (MCCB 60A)	2	Each	1936.00	50	2892.00	3778.00
	(d)	Sheet Steel Enclosure Supply and erection of sheet steel enclosures / distribution boards suitable for MCBs etc. on wall / existing boards / pedestal with tag bolts including bonding to earth						
	(iv)	Distribution board 4 way (1PT)	1	Each	602.00	50	893.00	1040.00
2.	31.17	Supply and erection of miniature circuit breaker / isolator 240/415V in the existing distribution board including making necessary connections;						
	(ii)	6A to 32A 3P (Havells / Standard)	24	Each	95.00	30	1425.00	1744.00
3.	31.19 (iii)	Painting of pole with 2 coats of enamelled paint or other approved paint upto the height of 7m						
	(a)	Single bracket	63	Each	30.00	100	1890.00	2283.00
4.	31.21	Supply and erection of pipe for wiring purposes including bench inspection boxes etc. where masonry and painting are required						
	(xxx)	Supply and erection of PVC pipe of 6kg pressure, laid for below ground level complete, including digging refilling of the trench with jointing etc.						
	(c)	PVC pipe 65mm dia	34	mtr	11.00	100	374.00	440.00
5.	31.22	Earthing						
	(i)	Earthing with GI earth pipe 4.5m long and 40mm dia with masonry enclosure on the top etc. as required	20	Each	70.00	100	1400.00	1690.00
	(ii)	Extra for using wall and chisel etc. for pipe earth electrode as required	0	Each	100.00	100	0.00	0.00

# ESTIMATE FOR PROVIDING CAMPUS LIGHTING IN HOSTEL BLOCKS OF NIT KURUKSHETRA

## Part A : Scheduled Items

Sl. No.	Ref. of HSR	Description	Qty	Unit	Rate (in Rs.)	C.P.	Total Rate (Rs.)	Amount (Rs.)
	(xii)	Providing and laying earth connections from earth electrode with 4mm dia GI wire in 15mm dia GI pipe from earth electrode as required.	40	mtrs	24.50	150	61.25	2450.00
6.	31.25	Supply and erection of underground cable 1m below ground level covered with sand and bricks including necessary connections, digging and refilling of trenches.						
	(xxv)	25sqmm 3.5C cable	20	mtrs	64.50	130	140.50	2067.00
	(xi)	16sqmm 4C cable	2065	mtrs	60.80	130	12534.40	22601.00
7.	31.26	Supply and erection of underground cable loose in existing pipe or trenches complete with necessary connections:						
	(xxv)	25sqmm 3.5C cable	20	mtrs	49.90	130	114.70	2205.00
	(xi)	16sqmm 4C cable	290	mtrs	46.80	130	107.62	1115.00
8.	31.28	Supply and erection of suitable compression type brass cable glands for underground cable:						
	(ii)	10sqmm to 16sqmm cable 2C to 4C	136	Each	9.50	130	21.16	267.00
	(iii)	25sqmm to 50sqmm cable 2C to 4C	4	Each	16.80	130	38.64	131.00
9.	31.30 III	Supply and erection of stepped steel tubular pole (Swaged type) conforming to IS:5, welded with mild steel base plate of size 30cmx30cmx600mm thick including erection of pole in ground surrounded with 30cm dia of 1:3:6 cement concrete and platform of 10cm thick to the size of base plate at the bottom.						
	(i)	7m long single bracket pole duly embedded 1.25m below ground level conforming to IS:512 of IS:2713 (part-II) 1980, extending the top section by 1.25m and smoothly curved making an angle of 10 to 15 degree with the horizontal plane, bracket filled with suitable size of mild steel nipple (minimum 40cm in the bracket) to hold the fitting.	68	Each	1235.00	130	81980.00	101200.00



# ESTIMATE FOR PROVIDING CAMPUS LIGHTING IN HOSTEL BLOCKS OF MIT KURUKSHETRA

## Part A : Scheduled Items

Sl. No.	Ref. of HSR	Description	Qty	Unit	Rate (Rs.)	C.F.	Total Rate (Rs.)	Amount (Rs.)
	V.	Supply and erection of weather proof MS box of size 20cm x 15cm x 10cm covered with 3mm thick MS sheet hinged cover housed in 1:2:4 cement concrete muff including suitable size of PVC pipe for incoming and outgoing cables, including the cost of 1 No. 16A 415V Kit Kat and 2 Nos. 63A 415V neutral links, fixed on hard wood board in the MS box including the cost of locking arrangement, painting and necessary connections etc.						
10.	(i) 31.33	Muff size 40cm dia 50cm high Supply and erection of Godej Almirah type MS pedestal made of 50mmx50mmx6mm angle iron frame with 3mm thick MS sheet covering including shutters with suitable hinges and locking arrangement with Godej type handle including round bars. The top covering should have downward overhang of 75mm on all sides of pedestal, having two sets of water proof ventilation holes of suitable size on the sides, at top and bottom, each set containing four blow holes to discharge the heat produced by the current. The shutters fixed with rubber gasket of superior quality and of of suitable size to make it water proof. The pedestal duly painted both inside and outside with two coats of approved paint and primary coat and its legs are embedded upto the entire depth in 1:2:4 cement concrete block, projected 75mm all around the pedestal and 200mm above the ground level including the cost of all labour and material required to complete the job in all respects upto the entire satisfaction of engineer in charge.	01	Each	120.00	100	12000.00	12000.00

# ESTIMATE FOR PROVIDING CAMPUS LIGHTING IN HOSTEL BLOCKS OF MITTICURUKHETRA

## Part A : Scheduled Items

Sr. No.	Ref. of Bill	Description	Qty	Unit	Rate (Rs.)	C.P.	Total Rate (Rs.)	Amount (Rs.)
	(iii)	MS pedestal of size 750mm wide, 1200mm high and 300mm deep and bottom totally open, duly embedded in cement concrete block of size 900mmx450mmx200mm above ground level duly plastered with 12mm thick 1:4 cement plaster, having a base of size 1050mmx600mmx250mm below ground level.	2	Each	1762.50	150	4907.50	6315.00
11.	31.40	Supply and erection of PVC unsheathed copper conductor cable single core 1100W grade in pipe of suitable size excluding cost and erection of pipe.						
	i)	Cable size 1.5sqmm (3/0.81mm)	952	mtrs	10.20	0	10.20	9710.40
		Total of scheduled items						16025.40

**ESTIMATE FOR PROVIDING CAMPUS LIGHTING  
IN HOSTEL BLOCKS OF NIT KURUKSHETRA**

**Part B : Non-scheduled Items**

Sr. No.	Description	Qty	Unit	Rate (Rs.)	Amount (Rs.)
1	Supply, erection, testing and commissioning of 4x24W T-5 street light fitting suitable for T-5, 4x24W FTI, 2' long Asian make Cat No. ABF-543500 complete with electronic ballast, lamp holder, acrylic cover and tube rods. The fitting is to be erected on existing 7mtr high pole.	68	Each	6050.00	411400.00
2	Supply, erection, testing and commissioning of electronic time switch suitable for 3 Phase system comprising of 1 No. timer clock with battery 1 No. MI-2 contactor of L&T / BCF make, bypass toggle switch, HRC fuse and complete wiring with PVC copper wire. The time switch sheet and enclosed in 16G sheet MS enclosure with front hinged cover. The time is to be fixed in existing pedestal with nut-bolts and making connections to Street lighting circuit with cost of PVC copper wire of required size.	2	Each	7370.00	14740.00
Total of non-scheduled items					426140.00

# PROVIDING CAMPUS LIGHTING IN HOSTEL BLOCKS OF INT KURUKSHETRA ABSTRACT OF STREET LIGHT

Sl. No.	Description	Steel Tubular pole 1m long with single street light (Nobs.)	MS Puridan box with 100W lamp with 100W lamp (Nobs.)	MS Pedestal 700mm wide 1000mm high (Nobs.)	Sanding with GI pipe 40mm dia (Nobs.)	PVC arm cable		MOCS 30A 10KA (Nobs.)	MOCS TPN DB 4way (Nobs.)	MOCS SP 20A 3KA (Nobs.)	PVC pipe 35mm dia 5kg pressure (Nobs.)	Voltage drop in current cable (V/m)	Total Voltage Drop (V/m)
						60mm dia 13.5m mbs	60mm dia 13.5m mbs						
Program 1: Hostel Block													
1	From Block Room PS	-	-	-	1	10	-	1	1	12	-	0.25	0.25
2	From Block Room PS	-	-	-	1	-	400	-	-	-	10	0.30	1.04
3	From Block Room PS	-	-	-	1	-	300	-	-	-	40	0.75	1.00
4	From Block Room PS	-	-	-	1	-	300	-	-	-	10	0.30	0.75
Program 2: Hostel Block													
5	From Block Room PS	-	-	-	1	10	-	1	1	12	-	0.25	0.25
6	From Block Room PS	-	-	-	1	-	400	-	-	-	10	0.30	1.04
7	From Block Room PS	-	-	-	1	-	300	-	-	-	40	0.75	1.00
8	From Block Room PS	-	-	-	1	-	300	-	-	-	10	0.30	0.75
Program 3: Hostel Block													
9	From Block Room PS	-	-	-	1	10	-	1	1	12	-	0.25	0.25
10	From Block Room PS	-	-	-	1	-	400	-	-	-	10	0.30	1.04
11	From Block Room PS	-	-	-	1	-	300	-	-	-	40	0.75	1.00
12	From Block Room PS	-	-	-	1	-	300	-	-	-	10	0.30	0.75

PROVIDING CAMPUS LIGHTING IN HOSTEL BLOCKS OF NIT KURUKSHETRA  
ABSTRACT OF STREET LIGHT

Sr. No.	Description	Steel Tubular pole 7m long with single bracket (Nos.)	Junction box with muf 50cm high (Nos.)	150W HPSV lamp running with SON-T plus lamp (Nos.)	MS pedestal 750mm wide 1200mm high (Nos.)	Earthing with GI pipe 40mm dia (Nos.)	PVC arm cable AL		MCOB 40A 10KA (Nos.)	MCOB TPA DB 40A (Nos.)	MCOB SP 20A 3KA (Nos.)	PVC pipe 35mm dia 5kg pressure mtrs	Voltage drop in current Volts (Volts)
							25sqmm 3.5C mtrs	13sqmm 4C mtrs					
Undergraduate Hostel Block													
1	From Elec. Point UG Hostel to processed pedestal	-	-	-	1	2	20	-	1	-	12	-	0.23
2	From Elec. Pedestal 100 mtr (Sub P to Bus)	1	10	12	-	3	-	413	-	-	-	12	1.52
3	From Elec. Pedestal 100 mtr (Sub P to Bus)	9	12	2	-	2	-	240	-	-	-	12	0.54
4	From Elec. Pedestal 100 mtr (Sub P to Bus)	12	12	12	-	3	-	426	-	-	-	12	1.43
5	From Elec. Pedestal 100 mtr (Sub P to Bus)	2	40	20	1	10	30	1000	-	1	12	36	-

ESTIMATE FOR PROVIDING CAMPUS LIGHTING  
IN HOSTEL BLOCKS OF NIT KURUKSHETRA

RATE ANALYSIS-I

Supply & Erection of 4x24W T-5 street light fitting with tube rods

Description	Amount
Quoted price for 4x24W T-5 street light fitting with tube rods by Asian Electronics Ltd.	4800.00
Add 12.50% VAT	600.00
Total	5400.00
Labour charges for carriage and erection of street light fittings	100.00
Total	5500.00
Add 10% contractor's profit	550.00
Total	6050.00
Say Rs.	6050.00

# ESTIMATE FOR PROVIDING CAMPUS LIGHTING IN HOSTEL BLOCKS OF PIT KIRUKSHETRA

## RATE ANALYSIS-2

### Supply & Erection of time switch for street light

Description	Amount
1) Cost 1 No. daily programmable timer of L&T make (GIC)	2350.00
2) Cost of 1 No. 3 phase contact M.L-2 of L&T make	2575.00
3) Cost of 1 No. control HRC Fuse	150.00
Balance	5075.00
Add VAT 12.5%	634.38
Total	5709.38
4) Cost of bakelite sheet 5/8" thick	200.00
5) Cost of M.S enclosure of 16G sheet	450.00
6) Cost of PVC copper wire 10sqmm single core for connections 3m @Rs.60/- pm	180.00
7) Cost of PVC copper wire 1.5sqmm single core 4m @Rs. 11/- pm	11.00
Total	6550.38
Labour charges for carrying and erection of Time switch	150.00
Total	6700.38
Add 10% contractor's profit	670.04
Total	7370.42
Rev. Est.	7370.00

**Subject: -11.15 To consider & approve the cost estimate for the Installation of 11KV Sub-station for the Electric Connection of U.G. & P.G 350 Seaters Boys Hostel at NIT, Kurukshetra.**

The Institute has constructed & completed U.G &P.G Hostel Buildings at NIT Kurukshetra. To provide Electric connection in both these Hostels, 11 K.V. Sub-Station is essentially required. The cost estimate for the Installation of 11 K.V. Sub- station for the Electric connection to U.G. & P.G. Hostels was prepared amounting to Rs. 13.48 Lac. Being urgent matter, The Tenders were invited on 29.05.09, after obtaining prior approval of The Chairman, B&WC in anticipation approval of Building & Works Committee, only one tender was received. After scrutinizing preparing comparative statement & negotiation, the work was allotted to the lowest Tenderer M/s Goyal Engineers & Control, Hisar, amounting to Rs. 19.30 lac.

It is therefore, requested that B&WC may consider & accord approval for Rs. 19.30 lac for this work.



**Financial/Comparative Statement of Installation of 11KV Sub-Stations for the Electric Connection of UG & P.G 350 Seaters Boys Hostels at NIT, Kurukshetra .**

Rate Quoted by the agencies

Sl. No.	Description	Estimated Cost (HSR+CP)	Goyal Engineer & Control-Hisar		
			Premium (HSR+CP)+28% items	on all HSR	Amount (Rs.)
1	Total Amount of Electrical Schedule Items	374,452.23			479,298.85
2	Total Amount of Electrical Non Schedule Items	992,070.00			1,727,196.00
	<b>TOTAL</b>	<b>1,366,522.23</b>			<b>2,206,494.85</b>

Rs.

1,366,522.00

2,206,495.00

839,973.00

61.47 %

Excess over Estimated Cost Rs.

Excess Percentage on Estimated Cost

Submitted please:

Only One tender were received on 29-05-2009 for the above work, one from M/s Goyal Engineer & Control-Hisar.

As per financial/ comparative statement prepared by this office, the rates quoted by M/s Goyal Engineer & Control-Hisar are the lowest rates with a cost of Rs. 22,06,495.00. The rates of M/s Goyal Engineer & Control-Hisar. When compared with the estimated cost of the work, gives an excess of Rs. 8,39,973.00 i.e. Rs.13,66,522.00 (-) 22,06,495.00 Rs. = (-) Rs.13,66,522.00 or 61.47%. The rate seems to be reasonable. May if approved, allot the work to the single agency i.e M/s Goyal Engineer & Control-Hisar.

-----Sd-----

**EXECUTIVE ENGINEER**  
Construction Cell  
NIT-Kurukshetra

**ESTIMATE OF INTERNAL ELECTRIFICATION OF 11KV SUB-STATION BUILDING  
FOR BOYS' HOSTEL FOR P.G & U.G AT NIT KURUKSHETRA  
PART 1 - SCHEDULED**

Item No.	HSR No.	Description of Item	Unit	Qty.	HSR Rate	CP %age	HSR+SP Rate	Amount
1	31.12 (D)	Supply and erection of sheet steel enclosures distribution boards suitable for MCBs etc. on wall/existing board pedestal with rag bolts including bonding to earth:-						
		(v) Distribution board 6 way (SPN)	2	Each	279.00	50%	418.50	837.00
2	31.13	Supply and erection of M.S. angle iron frame duly welded for Housing M.S. sheet & main switches etc. on it, fixed on wall by means of suitable size of rag bolts with cement concrete, duly painted with three coats of approved paint including one coat of red oxide						
		(ii) Size 40 mm x 40 mm x 6 mm.	3	mtr	46.50	150%	116.25	348.75
3	31.17	Supply and erection of miniature circuit breaker/ isolator 240/415 V in the existing distribution board including making necessary connection:-						
		(a) Miniature Circuit Breakers of 9 K.A. breaking capacity						
		(ii) 6 amp to 32 amp (SP) Havell's/ Standard	12	Each	95.00	30%	123.50	1482.00
		(iii) 40 amp to 63 amp. (SPN) Havell's/ Standard	2	Each	240.00	30%	312.00	624.00
4	31.18	Supply and erection of Fittings and Accessories						
		(xi) Bakelite angle/ straight button holder large size	4	Each	6.20	200%	18.60	74.40
		(xxiv) Erection only of 1 x 40 Watts or 2 x 40 Watts, 1220 mm long/1 x 20 watts or 2 x 20 Watts, 610 mm long- fluorescent tube fitting directly on wall including necessary connection with 0.75 sq mm (24/0-20 mm) PVC copper flexible cable for	4	Each	10.90	200%	32.70	130.80

		connection the tube with the adjacent light point						
		(xxxii) Making suitable size of wall niche including cement plastering of inside of niche for metal clad switches, branch distribution boards, bus bar chambers and energy meters	0.10	Cum	66.00	200%	198.00	19.80
5	31.20	Erection and carriage of fans						
		(i) Erection of ceiling fan complete with necessary earthing of fan and regulator including carriage from local railway station/Goods transport/PWD store to the site of work	4	Each	13.00	130%	29.90	119.60
		(iii) Erection of exhaust fan complete with necessary earthing of fan and regulator including carriage from local railway station /Goods transport /PWD store to the site of work	2	Each	25.00	130%	57.50	115.00
		(v) Making suitable hole in the wall up to 450 mm sweep exhaust fan including finishing the same and fixing of wire mesh duly fixed with Deodar wood frame of section 40 x 25 mm thick	2	Each	53.00	130%	121.90	243.80
		(vi) Pdg. And fixing required size of deodar wood frame of section 50 mm x 32 mm for fixing exhaust fan up to 450 mm sweep	2	Each	55.00	130%	126.50	253.00
6	31.21	Supply and erection of pipe for wiring purposes including bends inspection boxes etc. where necessary and painting as required:-						
		(xxi) Heavy gauge welded conduit pipe 20 mm dia 1.60 mm thickness flushed	60	mtr	16.30	150%	40.75	2445.00

		(xxx) Supply and erection of PVC pipe of 6 Kg. pressure, laid 1 meter below ground level complete, including digging refilling of the trench with jointing etc.						
		(c) PVC pipe 65 MM dia	12	mtr	31.00	150%	77.50	930.00
7	31.22	Earthing						
		(iii) Earthing with G.I. earth plate 600 mm x 600 mm x 6 mm thick including accessories and providing masonry enclosures with cover plate having locking arrangement and watering pipe etc.(but without charcoal or coke and salt) complete as required	14	Each	453.00	150%	1132.50	15855.00
		(v) Extra for charcoal or coke and salt for G.I. plate or copper plate earth electrode	14	Each	186.00	150%	465.00	6510.00
		viii) Supply and laying 25mmx5mm GI strip at 0.5m below ground as strip earth electrode including soldering etc. as required.	60	mtr	16.20	150%	40.50	2430.00
8	31.25	Supply and erection of under ground cable 1 meter below ground level covered with sand and bricks including necessary connections, digging and refilling of trenches:-						
		(xxxii) 3.5x185 Sq mm (arm)	400	Meter	228.00	130%	524.40	209760.00
9	31.26	Supply and erection of under ground cable loose in existing pipe or trenches complete with necessary connections.						
		(xxxii) 3.5x185 Sq mm (arm)	200	Meter	215.40	130%	495.42	99084.00
10	31.28	Supply and erection of suitable compression type brass Cable glands for underground Cable:-						
		(v) 120 Sq mm to 185 Sqmm Cable 3 to 3.5 Core	8	Each	28.60	130%	65.78	526.24
11	31.35	Miscellaneous						
		(iii)Supply and erection of caution notice plate in three languages	8	Job	2.00	130%	4.60	36.80

		(iv) Supply and erection of shock restoration chart in glass frame	2	Job	37.50	130%	86.25	172.50
		(vii) Supply and erection of 75 mm x 75 mm x 60 mm deep M.S. box for telephone and inter-communication system including 2 pin 5 amp. socket including cost of bakelite sheet	2	Each	18.00	130%	41.40	82.80
		(ix) Supply and erection of aluminum lugs heavy duty including crimping etc. up to the entire satisfaction of the Engineer-in-charge of the work:-						
		(i) 95 Sq mm	8	Each	5.60	130%	12.88	103.04
		(i) 185 Sq mm	24	Each	11.20	130%	25.76	618.24
		(xi) Supply & erection of cable route marker made of 50 cm long 10 mm dia M.S. Rod welded/revitted at the top with 10 cm dia 5 mm thick G.I. plate inscribed with 'cable' word on it, having a cross arm 30 cm long of the same dia welded at the bottom, in existing trench 45 cm below ground level	20	Each	17.00	130%	39.10	782.00
12	31.36	Wiring in 1.5 sq mm PVC insulated Copper conductor cable in 1.6 mm thick conduit pipe						
		(i) Fan point						
		(c) Long Point	2	Each	733.00	0%	733.00	1466.00
		(ii) Light Point						
		(b) Medium Point	4	Each	433.00	0%	433.00	1732.00
		(c) Long Point	2	Each	639.00	0%	639.00	1278.00
		(vii) 3 pin 5 amp. Plug point including earthing the 3 <sup>rd</sup> pin etc.						
		(a) Short Point	4	Each	283.00	0%	283.00	1132.00
		(b) Medium Point	4	Each	466.00	0%	466.00	1864.00
		(viii) 3 pin 15 amp. Plug point including earthing the 3 <sup>rd</sup> pin etc. with 4 sq mm size						
		(c) Long point	4	Each	970.00	0%	970.00	3880.00
13	31.40	Supply and erection of PVC unsheathed copper conductor cable single core 1100 volts grade in pipe of suitable size excluding cost and erection of pipe.						

	(i) Size 1.5 sq mm (1/1.40 mm)	40	mtr	10.20	0%	10.20	408.00
	(iii) Size 4.0 Sq mm (1/2.24 mm)	40	mtr	24.50	0%	24.50	980.00
	<b>Total:</b>						<b>356323.77</b>

**PART 2**

**NON SCHEDULE**

Item No.	Description of Item	Unit	Qty.	Rate	Amount
1.	<b><u>TRANSFORMER</u></b>				
	Supply erection testing and commissioning of suitable rating 11/0.433KV distribution transformer indoor type oil immersed, natural cooled having following specifications confirming to IS 2026 latest.				
	Rate Supply frequency -50Hz per second				
	No. of phases - 3				
	No. of winding - 2				
	Winding connection - Primary Delta, Secondary star with fully insulated neutral brought out to secondary terminals.				
	Material of Winding - Copper wound				
	Voltage taps - OFF load taps on primary for $\pm 7.50\%$ in steps of 2.5%				
	Primary side connections- Box suitable for XLPE 11KV cable.				
	Vector group DYn 11 group.				
	Secondary side connections - Box suitable for 1 No. three phase (3.5C) LT cable.				
	Under carriage - Suitable under carriage with rollers with edges designed so as to permit sliding without damaging the floor and 2 Nos. lifting lugs.				
	Marshalling box - To facilitate connections of all protection devices like oil temp. indicator etc.				
	Fitting & Accessories - As per IS specifications, such as silica gel breather, conservator, cable end box for HT & LT sides, 2 Nos. earthing terminals, explosion vent drain valve, with plug including first filling of oil; Radiator thermometer Pockets, oil temperature indicator with A/T contacts etc. The transformer is to be erected on existing platform and making all incoming & outgoing connections. The job includes cost of transformer & painting of all MS parts & as per UHBVN terms (Transformer make from the approved make list of UHBVN Ltd.) including first filling of transformer of warranty-02 years				
a)	315 KVA Indoor Transformer	Each	2	300,000.00	600,000.00

2		Supply and erection fo 11KV CT,PT, metering panel consisting of trivector meter CT 15/5 or 20/5 having accuracy class 0.5 and burden 05VA meter secure premier-5A HT as approved by UHBVN Ltd.. PT with voltage ratio 11KV/110V, 3Phase having burden 10VA per phase for 3phase 4 wire system 0.5 aceuracy class and conforming to relevant ISS and as per UHBVN specifications and requirements complete enclosed in 14/16G CRCA sheet enclosure including making all the necessary connections to the satisfaction of Engineer-in-charge. Testing & approval of C.T/P.T./Meter from UHBVN Ltd. is included in this scope of work without any further financial benefit. C.T.,P.T. & meter other detailed specifications as per UHBVN rules & regulations	Each set	2		50,000.00	100,000.00
3		Providing & fixing MV danger notice plat 142x192mm made out of MS sheet 2mm thick with inscribition in single red colour on front side as required & approved by UHBVN.	Each	12		100.00	1,200.00
4		Supply, installation, testing and commissioning of outdoor two pole 11KV HT structure as per drawing and specifications of 9m Height complete with following equipment inter connections and all hardware, consumables, weiding rods etc.	Each	2		20,000.00	40,000.00
	a.	400A, 11KV, 3 Phase GO switch with GI operating rod and handle with padlocking arrangement = 1 No.					
	b.	11KV grade, IGE make, station class lightening arrestor = 1set of 3 Nos.					
	c.	11KV, dropout fuse mounting complete with 50A DO fuses, 100A fuse holders etc.=1set of 3 Nos.					
	d.	Insulated Operating rod for DO fuse = 1 No.					
	e.	Two pole structure fabricated from using PCC pole 9m long as per IS specification and UHBVN requirements accomodate the equipments mentioned above with two coat of red oxide primer and two coats of aluminium paint complete in all respect. The work has to be executed as per drawing and specifications. This shall include interconnection with electricity board 2 pole structure for supply of power (upto a distance of 5m) =-1 set of 2 poles.					

5		Supply, erection of GI pipe A class ISI marked 3m long to be laid in ground in vertical formation and upper portion to be fixed to the PCC pole with atleast 2 Nos. MS clamps of size 50mmx5mm flat duly painted.					
	a.	4" (100mm dia)	Each	12		1,850.00	22,200.00
6		<b>SAFETY EQUIPMENTS</b>					
	a.	Supply & laying of 12mm thick and 1 mtr wide rubbermat for panel board.	R mtr	12		900.00	10,800.00
	b.	Supply, filling and fixing of following type of fire extinguishers in electrical room.					
	i)	CO <sub>2</sub> type fire extinguishers 5kg	No.	8		3,300.00	26,400.00
	ii)	Dry powder type 5kg	No.	8		3,400.00	27,200.00
	iii)	Sand bucket stand with 3 Nos. MS Buckets	Set	8		850.00	6,800.00
7	A.	Supply & laying of HT cable 11KV XLPE 1m below ground level covered with sand and second class bricks / in existing trench as per site requirement complete with cost of sand brick etc. required as per satisfaction engineer-in-charge (Havell's / Polycab / Incab make or as approved by Engineer-in-charge).					
		b) 70sqmm 3C cable	mtr	100		650.00	65,000.00
	B.	Supply and termination of HT cable 11KV XLPE jointing kit with cost of end joint heatshrink type with all accessories required (Raychem / Denson / M-seal make or as approved by Engineer-in-charge).					
		a) Outdoor type for 70sqmm 3C cable	No.	4		5,000.00	20,000.00
		c) Indoor type for 70sqmm 3C cable	No.	6		5,000.00	30,000.00
8		Providing and laying in position hume pipes NP-2 conforming to IS of following sizes in road crossings, with upper level 0.75m below road level, paved areas etc. including collars, joints filled with cement mortar 1:4 (1 cement : 4 coarse sand) finished neat and provided 75mm thick cement concrete 1:3:6 (1 cement coarse sand : 6 crushed stone) aggregate 20mm and compacted and finished smooth complete.					
	a.	300mm dia pipe	RM	40		250.00	10,000.00
		<b>DISTRIBUTION BOARDS</b>					
9	NS	Supply of erection of metal clad switch with tag bolts on wall or existing angle board/pedestal including bonding to earth & necessary connections. Triple pole with neutral 400A, 415V 50HZ, 3Ph. HRC fuses 400A in metal clad					



		chamber of L&T/English Electric/ Siemien make					
			No.	2		10000.00	20,000.00
10	NS	Supply of following luminaries comprising of basic channel, holder, Instant start, flicker free electronic operation, Easy to fit snap on adjustable installer, compatible with energy saving tube light as per specification, including connecting wires, clamps screws fixing arrangement etc.					
		T5,28 W Philips TCH 128/2005/865 light fitting including 28 W, t5 tube fixture	4	Each		600.00	2400.00
11		Supplying ceiling fan 1400 mm sweep, double ball bearing with mechanical regulator including all accessories, wiring, down rod of standard length etc. complete as required.	2	Each		1200.00	2400.00
12	NS (a)	Supplying exhaust fan 450 mm sweep, 900 rpm heavy duty including louvers/ shutters all accessories wiring etc. complete as required.	2	Each		3835.00	7670.00
		Total of non schedule items					992070.00
		Total of schedule items					356323.77
		Total					1348393.77
						Say Rs.	1348000.00

-----Sd-----  
EXECUTIVE  
ENGINEER  
Construction Cell  
NIT-Kurukshetra

**ItemNo.11.16**      **To consider & approve the cost estimate for the construction of Two Rooms Size 18ft. x 16ft. in front of U.G. & P.G. 350 seaters Boys Hostel for Housing Transformers and CT/PT Energy meter box at NIT, Kurukshetra.**

The Institute has constructed & completed U.G & P.G. Hostel buildings. Two Rooms of Size 18ft. x 16ft. are required for housing transformers and CT/PT Energy meter box for these hostels. The cost estimate has been prepared, scrutinized by construction cell amounting to Rs. 8.54 Lac. The Tenders were invited on 29.05.09, after obtaining prior approval of The Chairman, B&WC in anticipation of approval of Building & Works Committee, three tenders were received. After scrutinizing & preparing comparative statement, the work was allotted to the lowest Tenderer M/s Dynamic Construction Company Rewari, with an estimated cost of Rs. 9.86 lac on 15.06.09.

It is therefore, requested that B&WC may consider & accord approval for Rs. 9.86 Lac for this work.

Rate Quoted by the agencies

Sl. No.	Description	Estimated Cost (HSR+CP)	Balbir Singh-KKR		Dyanamic Const.-KKR		Paryas Co-Op. Society-KKR	
			Premium (HSR+CP)+47.20% on all HSR items	Amount (Rs.) 571,282.84	Premium (HSR+CP)+27% on all HSR items	Amount (Rs.) 492,886.69	Premium (HSR+CP)+ 45% on All HSR Items	Amount (Rs.) 562,744.65
1	Total Amount of Civil Schedule Items For P.G	388,099.76						
2	Total Amount of Civil Schedule Items For U.G.	388,099.76						
	<b>TOTAL</b>	<b>776,199.51</b>		<b>1,142,565.68</b>		<b>985,773.38</b>		<b>1,125,489.29</b>
	Rs.	776,200.00		1,142,566.00		985,773.00		1,125,489.00
	Excess over Estimated Cost Rs.			366,366.00		209,573.00		349,289.00
	Excess Percentage on Estimated Cost			47.20 %		27.00 %		45.00 %

Submitted please:

Only three tenders were received on 29-05-2009 for the above work, one from M/s Balbir Singh-KKR, 2nd from M/s Dyanamic Const.-KKR, 3rd from Paryas Co-Op. Society-KKR

per financial/ comparative statement prepared by this office, the rates quoted by M/s Dynamic Construtions-KKR are the lowest rates with a cost of Rs. 985773.00. The rates of M/s Dynamic Construtions-KKR Co. when compared with the estimated cost of the work, gives an excess of Rs. 99,573.00 i.e. Rs.7,76,200.00 (-) 9,85,773.00 Rs. = (-) Rs. 2,09,573.00 or 27.00%. The rate seems to be reasonable. May if approved, allot the work to the lowest agency i.e M/s Dynamic Construtions-KKR.

-----Sd-----

EXECUTIVE ENGINEER

**ESTIMATE OF CIVIL WORKS FOR CONSTRUCTION OF ROOM (SIZE-18'X16') FOR TRANSFORMER IN NEW P.G. 350 SEATERS BOYS HOSTEL AT NATIONAL INSTITUTE OF TECHNOLOGY, KURUKSHETRA.**

**(BASED ON HSR-1988 & LATEST SANCTIONED PREMIUM W.E.F. 01-02-2009)**

Sr. No.	HSR No.	Description	Qty.	Unit	Rate (in Rs.)	C.P.	Total Rate (Rs.)	Amount (in Rs.)
<b>SUB PART-I: INTERNAL CIVIL WORKS (SCHEDULE ITEMS)</b>								
1	6.6	Earth work in excavation in foundation, trenches etc. in all kind of soils, not exceeding 2 mtrs. depth including dressing of bottom and sides of trenches, stacking the excavated soil, clear from the edge of excavation and subsequent filling around masonry in 15 cm layers with compaction, including disposal of all surplus soil as directed within a lead of 30 mtrs.	20.42	100 Cum	1108.10	350%	4986.45	1018.2
2	10.39	Cement concrete 1:4:8 with stone aggregate 40mm nominal size in foundation and plinth	7.88	Cum	403.10	340%	1773.64	13976.2
3	10.82+10.95(a)	Cement concrete 1:2:4 with stone aggregate 20mm nominal size for reinforced concrete work in slabs with inclination not exceeding 25 degree with horizontal, excluding steel reinforcement, but including centring and shuttering laid in position complete in all respect.	6.20	Cum	1084.80	340%	4773.12	29593.3
4	10.86+10.95(a)	Cement concrete 1:2:4 with stone aggregate 20mm nominal size for reinforced concrete work for wall exceeding 20cm thickness (straight and curved) beams, girders, stair, columns (square or rectangular) battens and lintels etc. excluding steel reinforcement but including centring and shuttering, laid in position complete in all respects.	2.00	Cum	1188.75	340%	5230.50	10461.0
5	10.46	Cement concrete 1:8:16 with stone aggregate 40mm nominal size	22.00	Cum	324.90	340%	1429.56	31450.3

6	10.114	Damp proof course 40mm thick of cement concrete 1:2:4 using stone aggregate 20mm nominal size with 2 coats of bitumen 20/30 penetration at 1.65kg per sqm. laid hot and sanded.	6.70	Sqm	35.05	340%	154.22	1033.2
7	10.132	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in pavement, roads, taxi-tracks and run ways, laid to required slope and camber, i/c consolidation, finishing and tamping complete.	12.50	Cum	642.40	340%	2826.56	35332.0
8	11.2	First class brickwork laid in cement sand mortar 1:6 in foundation and plinth.	16.50	Cum	393.45	400%	1967.25	32459.6
9	11.7	First class brickwork laid in cement sand mortar 1:6 in first storey upto 4 meter above plinth level.	24.50	Cum	414.45	400%	2072.25	50770.1
10	13.13	Terracing consisting of dtils 22.86x11.43x3.81cm laid over 87.50 mm iud filling on a layer 25mm mudplaster and another layer of mud mortar for laying the tiles, including two coats of bitumen laid hot at 1.65 Kg per sqm on top of RCC slab including grouting with cement sand mortar 1:3 and top surface to be left clean etc.	35.50	sqm	52.95	400%	264.75	9398.6
11	13.43	Providing and dembedding d100mm dia H.C.I rain water without ears I.S.I mark pipe in cement mortar during masonry work.	8.00	Each	93.35	350%	420.08	3360.6
12	13.49	Providing and fixing C.I plain bends in position with gutter etc.						
	a)	For 100mm dia	4.00	Each	57.45	350%	258.53	1034.1
13	13.50	Top Khurra 0.6x0.6m for rain water pipe in 25mm thick cement concrete 1:2:4 over 50 mm thick cement concrete 1:8:16.	4.00	Each	12.3	200%	36.90	147.6
14	13.64	Cement concrete 1:2:4 gola 10x10cm quadrant along junction of roof with parapet wall finished smooth, wherespecially specified.	38.50	Each	5.35	200%	16.05	617.9
15	14.1-10.26 Based derived rate	Sand filling under floor i/c laying consolidation, compaction & watering etc.	20.81	Cum	69.30	340%	304.92	6345.3

16	14.1	Base course of floor consisting of 100mm thick cement concrete 1:8:16 and 100mm sand or stone filling	61.21	Sqm.	36.95	340%	162.58	9951.5
17	14.3	Floating coat of 1.50mm thick neat cement laid in one operation to the topping	61.12	Sqm	3.70	340%	16.28	995.0
18	14.10	Conglomerate floor 50mm thick cement concrete topping 1:2:4	61.12	Sqm	37.60	340%	165.44	10111.6
19	15.7	12mm thick cement plaster 1:6 on wall	116.94	Sqm	10.65	340%	46.86	5479.8
20	15.50	10mm thick cement plaster 1:4	43.75	Sqm	10.20	340%	44.88	1963.5
21	15.12	15mm thick cement plaster 1:6 on the rough side of single or half brick	140.18	Sqm	13.10	340%	57.64	8079.9
22	16.1	Preparation of plywood surface for painting including sand papering the surface and applying with approved quality filler consisting of white lead, linseed oil, varnish and chalk mitti including finishing the surface to required finish complete (with first quality paint)	52.67	Sqm.	4.60	125%	10.35	545.1
23	16.2	Applying pink primer or aluminium priming coat on wood work including preparation of surface knotting and stopping etc. (with 1st quality paint)	52.67	Sqm.	3.75	125%	8.44	444.4
24	16.3	Applying two coats excluding priming coat with synthetic enamel paint in all shades on new woodwork or metallic or plastered or concrete surfaces to give an even shade (with first quality paint)	108.89	Sqm.	9.40	125%	21.15	2303.0
25	16.9	Applying priming coat with metal primer on new steel or iron work including preparation of surface with first quality paint)	56.32	Sqm.	3.15	125%	7.09	399.1
26	16.25	Applying priming coat with cement primer in all shades on newly plastered or concrete exterior surface	160.69	Sqm	4.15	125%	9.34	1500.4

27	16.52	Preparation of plastered surfaces for oil bound distemper including sand papering the surface, applying 1 coat of linseed oil and filling with approved quality filler consisting of white led, linseed oil, warnish and chalk mitti including finishing the surface to the required finish complete.	160.69	Sqm.	11.15	125%	25.09	4031.3
28	16.58	Distemping with washable oil bound distemper (of approved manufacture) two coats over one priming coat on new work.	160.69	Sqm.	9.10	125%	20.48	3290.1
29	16.61	Finishing walls with exterior decorative cement based paints such as snowcem, Robbiacem etc. on new work two coats to give an even shade.	140.10	Sqm	7.25	125%	16.31	2285.38
30	17.90 (a)-note-1 of 17.18	Factory manufactured panelled door or glazed window shutter of commercial hard wood such as hollock, champ, chikrassy and chaplash etc. (non-confireous timber other than teak conforming to I.S. specification no. 1003 kiln seasoned) with 100mm vide vertical styles, 150mm vide lock rail, 200mm vide bottom rail & 100mm vide others rail with panelles of 15mm thick, tongued and grooved of commercial hard wood i./c the cost of iron hinges, screws, chocks/cleats, stops, nails etc. complete fixed in position excluding the cost of any fittings other than specified above but including the labour for fixing the same in position						
		For Glazed windows (30mm thick)	8.00	Sqm	398.15	250%	1393.53	11148.20
	b)	Glazed shutter (35 thick)	5.00		424.15	250%	1484.53	7422.60

31	17.92 -note-1 of 17.18	Factory manufactured wire glaze door and window shutter of Wire Gauge Commercial hard wood such as hollock, champ, chikrassy and chaplash (non-confireous timber other than teak conforming to I.S. specification no. 1003 kiln seasoned) with 100mm vide vertical styles, 150mm vide lock rail, 200mm vide bottom rail & wire gauze of 140G or 120G designation i./c the cost of iron hinges, screws, chocks/cleats, stops, nails etc. complete fixed in position excluding the cost of any fittings other than specified above but including the labour for fixing the same in position						
	(i)	30mm thick (Window shutters)	6.05	Sqm	310.40	250%	1086.40	6572.7
32	18.12	Wrought iron and mild steel (using angles, flats, square bars, tees and channels) ladders grills, grating frames, window guard iron doors openable of fixed staircase of parapet or any other type of railing, gates and tree guards etc. including cost of screws and welding rods or bolts and nuts complete fixed in position.	2.00	Qtl.	1040.35	325%	4421.49	8842.9
33	18.22	Cold twisted deformed (ribbed/tor steel) bars for RCC works where not including bending, binding and placing in position complete.	12.00	Qtl.	917.05	350%	4126.73	49520.7
34	18.30	S/F glass panes including special metal sash putty of approved make						
	(b)	Glass panes 3mm thick, exceeding 40 sq.dm.area	6.40	Sqm	97.50	325%	414.38	2652.0



35	18.34	Pressed steel sheet frames (chowkhats), consisting of 2mm thick steel sheet of the specified section, including iron lugs (hold fasts), iron hinges, conforming to P.W.D. specifications including bolts for fixing stops, lock notch provision for receiving tower bolts and finished with one coat of ready mixed paint red lead non-setting primer of approved quality fixed in position including the cost of cement concrete 1:3:6 for filling in the frame and cement concrete 1:3:6 for lugs complete:-						
	(c)	Size 127mm x 50mm x 40mm wide double rebate	37.19	Mtr.	76.80	325%	326.40	12138.8
36	18.18 (b)	Supplying and fixing rolling shutters of approved make M.S. Laths interlocked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets side guides 27.5cm long wire spring grade no.2 and arrangement for inside and outside locking with push and pull operation complete including top cover 0.80mm thick (payment is to be made for the exact size of opening where rolling shutter is to be fixed);						
		With 80mm x 1.25mm M.S. Laths	6.69	Sqm	401.75	325%	1707.44	11422.7
Total:								388099.70

-----Sd-----  
EXECUTIVE  
ENGINEER  
Construction Cell  
NIT-Kurukshetra

**ESTIMATE OF CIVIL WORKS FOR CONSTRUCTION OF ROOM (SIZE-18'X16') FOR  
TRANSFORMER IN NEW U.G. 350 SEATERS BOYS HOSTEL AT NATIONAL INSTITUTE OF  
TECHNOLOGY, KURUKSHETRA.**

**(BASED ON HSR-1988 & LATEST SANCTIONED PREMIUM W.E.F. 01-02-2009)**

Sr. No.	HSR No.	Description	Qty.	Unit	Rate (in Rs.)	C.P.	Total Rate (Rs.)	Amount (in Rs.)
<b>SUB PART-I: INTERNAL CIVIL WORKS (SCHEDULE ITEMS)</b>								
1	6.6	Earth work in excavation in foundation, trenches etc. in all kind of soils, not exceeding 2 mtrs. depth including dressing of bottom and sides of trenches, stacking the excavated soil, clear from the edge of excavation and subsequent filling around masonry in 15 cm layers with compaction, including disposal of all surplus soil as directed within a lead of 30 mtrs.	20.42	100 Cum	1108.10	350%	4986.45	1018.2
2	10.39	Cement concrete 1:4:8 with stone aggregate 40mm nominal size in foundation and plinth	7.88	Cum	403.10	340%	1773.64	13976.2
3	10.82+10.95(a)	Cement concrete 1:2:4 with stone aggregate 20mm nominal size for reinforced concrete work in slabs with inclination not exceeding 25 degree with horizontal, excluding steel reinforcement, but including centring and shuttering laid in position complete in all respect.	6.20	Cum	1084.80	340%	4773.12	29593.3
4	10.86+10.95(a)	Cement concrete 1:2:4 with stone aggregate 20mm nominal size for reinforced concrete work for wall exceeding 20cm thickness (straight and curved) beams, girders, stair, columns (square or rectangular) battens and lintels etc. excluding steel reinforcement but including centring and shuttering, laid in position complete in all respects.	2.00	Cum	1188.75	340%	5230.50	10461.0
5	10.46	Cement concrete 1:8:16 with stone aggregate 40mm nominal size	22.00	Cum	324.90	340%	1429.56	31450.3

6	10.114	Damp proof course 40mm thick of cement concrete 1:2:4 using stone aggregate 20mm nominal size with 2 coats of bitumen 20/30 penetration at 1.65kg per sqm. laid hot and sanded.	6.70	Sqm	35.05	340%	154.22	1033.2
7	10.132	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in pavement, roads, taxi-tracks and run ways, laid to required slope and camber, i/c consolidation, finishing and tamping complete.	12.50	Cum	642.40	340%	2826.56	35332.0
8	11.2	First class brickwork laid in cement sand mortar 1:6 in foundation and plinth.	16.50	Cum	393.45	400%	1967.25	32459.6
9	11.7	First class brickwork laid in cement sand mortar 1:6 in first storey upto 4 meter above plinth level.	24.50	Cum	414.45	400%	2072.25	50770.1
10	13.13	Terracing consisting of dtiles 22.86x11.43x3.81cm laid over 87.50 mm iud filling on a layer 25mm mudplaster and another layer of mud mortar for laying the tiles, including two coats of bitumen laid hot at 1.65 Kg per sqm on top of RCC slab including grouting with cement sand mortar 1:3 and top surface to be left clean etc.	35.50	sqm	52.95	400%	264.75	9398.6
11	13.43	Providing and dembeeding d100mm dia H.C.I rain water without ears I.S.I mark pipe in cement mortar during masonry work.	8.00	Each	93.35	350%	420.08	3360.6
12	13.49	Providing and fixing C.I plain bends in position with gutter etc.						
	a)	For 100mm dia	4.00	Each	57.45	350%	258.53	1034.1
13	13.50	Top Khurra 0.6x0.6m for rain water pipe in 25mm thick cement concrete 1:2:4 over 50 mm thick cement concrete 1:8:16.	4.00	Each	12.3	200%	36.90	147.6
14	13.64	Cement concrete 1:2:4 gola 10x10cm quadrant along jundtion of roof with parapet wall finished smooth, wherespecially specified.	38.50	Each	5.35	200%	16.05	617.9
15	14.1-10.26 Based derived rate	Sand filling under floor i/c laying consolidation, compaction & watering etc.	20.81	Cum	69.30	340%	304.92	6345.3

16	14.1	Base course of floor consisting of 100mm thick cement concrete 1:8:16 and 100mm sand or stone filling	61.21	Sqm.	36.95	340%	162.58	9951.5
17	14.3	Floating coat of 1.50mm thick neat cement laid in one operation to the topping	61.12	Sqm	3.70	340%	16.28	995.0
18	14.10	Conglomerate floor 50mm thick cement concrete topping 1:2:4	61.12	Sqm	37.60	340%	165.44	10111.0
19	15.7	12mm thick cement plaster 1:6 on wall	116.94	Sqm	10.65	340%	46.86	5479.8
20	15.50	10mm thick cement plaster 1:4	43.75	Sqm	10.20	340%	44.88	1963.50
21	15.12	15mm thick cement plaster 1:6 on the rough side of single or half brick	140.18	Sqm	13.10	340%	57.64	8079.98
22	16.1	Preparation of plywood surface for painting including sand papering the surface and applying with approved quality filler consisting of white lead, linseed oil, varnish and chalk milli including finishing the surface to required finish complete (with first quality paint)	52.67	Sqm.	4.60	125%	10.35	545.10
23	16.2	Applying pink primer or aluminium priming coat on wood work including preparation of surface knotting and stopping etc. (with 1st quality paint)	52.67	Sqm.	3.75	125%	8.44	444.40
24	16.3	Applying two coats excluding priming coat with synthetic enamel paint in all shades on new woodwork or metallic or plastered or concrete surfaces to give an even shade (with first quality paint)	108.89	Sqm.	9.40	125%	21.15	2303.00
25	16.9	Applying priming coat with metal primer on new steel or iron work including preparation of surface with first quality paint)	56.32	Sqm.	3.15	125%	7.09	399.10
26	16.25	Applying priming coat with cement primer in all shades on newly plastered or concrete exterior surface	160.69	Sqm	4.15	125%	9.34	1500.40

27	16.52	Preparation of plastered surfaces for oil bound distemper including sand papering the surface, applying 1 coat of linseed oil and filling with approved quality filler consisting of white led, linseed oil, warnish and chalk mitti including finishing the surface to the required finish complete.	160.69	Sqm.	11.15	125%	25.09	4031.31
28	16.58	Distempering with washable oil bound distemper (of approved manufacture) two coats over one priming coat on new work.	160.69	Sqm.	9.10	125%	20.48	3290.11
29	16.61	Finishing walls with exterior decorative cement based paints such as snowcem, Robbiacem etc. on new work two coats to give an even shade.	140.10	Sqm	7.25	125%	16.31	2285.38
30	17.90 (a)-note-1 of 17.18	Factory manufactured panelled door or glazed window shutter of commercial hard wood such as hollock, champ, chikrassy and chaplash etc. (non-confireous timber other than teak conforming to I.S. specification no. 1003 kiln seasoned) with 100mm vide vertical styles, 150mm vide lock rail, 200mm vide bottom rail & 100mm vide others rail with panelles of 15mm thick, tongued and grooved of commercial hard wood i./c the cost of iron hinges, screws, chocks/cleats, stops, nails etc. complete fixed in position excluding the cost of any fittings other than specified above but including the labour for fixing the same in position						
		For Glazed windows (30mm thick)	8.00	Sqm	398.15	250%	1393.53	11148.20
	b)	Glazed shutter (35 thick)	5.00		424.15	250%	1484.53	7422.60

31	17.92 -note-1 of 17.18	Factory manufactured wire glaze door and window shutter of Wire Gauge Commercial hard wood such as hollock, champ, chikrassy and chaplash (non-confireous timber other than teak conforming to I.S. specification no. 1003 kiln seasoned) with 100mm wide vertical styles, 150mm wide lock rail, 200mm wide bottom rail & wire gauze of 140G or 120G designation i./c the cost of iron hinges, screws, chocks/cleats, stops, nails etc. complete fixed in position excluding the cost of any fittings other than specified above but including the labour for fixing the same in position						
	(i)	30mm thick (Window shutters)	6.05	Sqm	310.40	250%	1086.40	6572.72
32	18.12	Wrought iron and mild steel (using angles, flats, square bars, tees and channels) ladders grills, grating frames, window guard iron doors openable of fixed staircase of parapet or any other type of railing, gates and tree guards etc. including cost of screws and welding rods or bolts and nuts complete fixed in position.	2.00	Qtl.	1040.35	325%	4421.49	8842.98
33	18.22	Cold twisted deformed (ribbed/tor steel) bars for RCC works where not including bending, binding and placing in position complete.	12.00	Qtl.	917.05	350%	4126.73	49520.70
34	18.30	S/F glass panes including special metal sash putty of approved make						
	(b)	Glass panes 3mm thick, exceeding 40 sq.dm.area	6.40	Sqm	97.50	325%	414.38	2652.00

35	18.34	Pressed steel sheet frames (chowkhats), consisting of 2mm thick steel sheet of the specified section, including iron lugs (hold fasts), iron hinges, conforming to P.W.D. specifications including bolts for fixing stops, lock notch provision for receiving tower bolts and finished with one coat of ready mixed paint red lead non-setting primer of approved quality fixed in position including the cost of cement concrete 1:3:6 for filling in the frame and cement concrete 1:3:6 for lugs complete:-						
	(c)	Size 127mm x 50mm x 40mm wide double rebate	37.19	Mtr.	76.80	325%	326.40	12138.82
36	18.18 (b)	Supplying and fixing rolling shutters of approved make M.S. Laths interlocked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets side guides 27.5cm long wire spring grade no.2 and arrangement for inside and outside locking with push and pull operation complete including top cover 0.80mm thick (payment is to be made for the exact size of opening where rolling shutter is to be fixed);						
		With 80mm x 1.25mm M.S. Laths	6.69	Sqm	401.75	325%	1707.44	11422.76
Total:								388099.76

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EXECUTIVE  
ENGINEER  
Construction Cell  
NIT-Kurukshetra

**Item No.11.17 To consider & approve revised cost estimate for the construction & extension of New Floor of computer Engineering Deptt. at NIT, Kurukshetra.**

The existing building of Deptt. of Computer Engineering is not sufficient to handle the increased intake in computer Engineering and Information Technology. Moreover, in the next academic year, there would be further increase in intake under OBC Act and M. Tech. Computer science is also proposed to start w.e.f July, 2009. Hence, there would be more space requirement for laboratory, faculty cabins, store etc. Therefore, it requested that one additional floor may be constructed on the top of existing building in order to cater the needs of increase in intake of students and enhanced number of faculty and staff.

The matter has also been discussed in the meeting of the Institute under the Chairmanship of Dean (P&D), who recommended approved extension of new floor of Engineer deptt. The rough cost estimate amounting to Rs.200 Lac has been prepared by J.E (C), A.E (C) & scrutinized by construction cell.

The B&WC is requested to consider & approve the rough cost estimate amounting to Rs.200 Lac for the extension of New floor of Computer Engineering Deptt.



# NATIONAL INSTITUTE OF TECHNOLOGY

(INSTITUTION OF NATIONAL IMPORTANCE)

KURUKSHETRA

Rough Cost Estimate for construction of new floor of  
computer Engineering Deptt. at NIT Kurukshetra.

Plinth area of the building = 1100 Sqm.

Plinth area Rate = 11375 / Sqm

Cost of Building =  $1100 \times 11375 = 12512500.00$

Cost of P.H Internal Services (7.5%) on building cost

$12512500 \times 7.5\% = 938438.00$

Cost of water supply & sanitary installation (15%) on building cost

$12512500 \times 15\% = 1876875.00$

Cost of Electricity Installation including fans etc. (13%) on building  
cost

$12512500 \times 13\% = 1626625.00$

Miscellaneous

20% on building cost

$12512500 \times 20\% = 2502500.00$

Total = 19456938.00

Contingencies 3% overall

$19456938 \times 3\% = 583708.00$

G. Total = 20040646.00

Say Rs. 20041000.00

*for by C.E.C.*

*21/8/07*

