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**MATRIC NO: 18/ENG03/003**

**DEPARTMENT: CIVIL ENGINEERING**

**COURSE CODE: ENG 224**

**COURSE: ENGINEER IN SOCIETY**

**QUESTION 1**

 Scope of work

Rehabilitation of Alfa before

 This project MUST be under the supervision of a civil engineer, the aim of this project is to expand the Alfa-Belgore hall but as a result of no horizontal space to expand, the engineer plans to expand by increasing the height of the building. In general, the major amendment of the Alfa-Belgore hall will be the addition of an extra floor. This is also an opportunity to fix any cracks in the walls, wrong wiring, malfunctioning air-conditioner, leaking plumbing, architectural error as well as structural e.t.c..

 The project is set to commence January first and end in the last week in may

**QUESTION 2**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| RESEARCH |  |  |  |  |  |
| PHASE 1 WORK EFFORT |  |  |  |  |  |
| PHASE 2 WORK EFFORT |  |  |  |  |  |
| PHASE 3 WORK EFFORT |  |  |  |  |  |
| TESTING PHASE |  |  |  |  |  |
|  | January | February | march | April | May |

**QUESTION 3.**

 **HUMAN RESOURCES**;

Each personnel must have up to 3 years experience with electrical works.

Each refurbishing personnel must have a minimum of 4 years experience.

Each plumbing personnel have up to 3 years experience .

**PROJECT TEAM**

* Client.
* Consultant.
* Architect(Engineer).
* Contractor.
* Subcontractor.
* The client is the lead consultant.

**QUESTION 4**

* The site was secured in order to:
* prevent unnecessary injuries to different persons
* reduce the risk to the construction site
* increase the risk to the potential criminal. ... Deterrence – there are many ways to deter a criminal. Whereas an open, unprotected site looks welcoming to a potential criminal, a site with fences, locks, CCTV and security guards will discourage them.
* Reduce the threat to the ongoing operations, to property and materials and to the life of each personnel in the site

**QUESTION 5**

**BILL OF ENGINEERING MEASUREMENT AND EVALUATION (BEME)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/N** | **DESCRIPTION**  | **QUANTITY**  | **UNIT** | **RATE PER UNIT(NAIRA)** | **AMOUNT**  |
| 1 | Cement  | 100 | Bags | 3500 | 350000 |
| 2 | Sand | 2  | Tons | 5000 | 10000 |
| 3 | Iron Beams | 100 | pieces  | 4500 | 450000 |
| 4 | Cables  | 100 | Yards | 1150 | 115000 |
| 5 | Pipes | 100 |  | 2500 | 250000 |
| 6 | Consultancy fee |  |  | 1000000 | 1000000 |
| 7 | Transportation  |  |  | 120000 | 120000 |
| 8 | Site preparation and clearing  |  |  | 50000 | 500000 |
| 9 | Profit |  |  | 400000 | 400000 |
|  | Total |  |  | 3195000 | 3195000 |

**QUESTION 6**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S/N | DESCRIPTION  | SCHEDULE DATE | PERCENTAGE OF TEC(%) | AMOUNT  | PAYMENT DATE |
| 1 | Mobilization  | 30/02/2020 | 30 | 958500 | 14/01/2020 |
| 2 | 50% completion  | 16/03/2020 | 30 | 958500 | 17/03/2020 |
| 3 | Completion and handover  | 29/05/2020 | 30 | 958500 | 29/05/2020 |
| 4 | Defect liability period  | 12/10/2034 | 10 | 319500 | 12/10/2020 |

**QUESTION 7**

1. **BEME**: Bill of Engineering Measurement and Evaluation (BEME) also referred to as 'Bill'; is a tool used before, during and post-construction to assess and value the cost of construction works. This includes the cost of materials, labor, equipment and all/any other resource(s) required for the success of.
2. **Defect liability period**: A defects liability period is a period of time following practical completion during which a contractor remains liable under the building contract for dealing with any defects which become apparent. ... A defects liability period is usually a period of around six or 12 months but it can vary depending on the contract used.
3. **LEAD CONSULTANT**: The lead consultant is the consultant that directs the work of the consultant team and is the main point of contact for communication between the client and the consultant team, except for on significant design issues where the lead designer may become the main point of contact.
4. **PROJECT LIFE CYCLE**: The Project Life Cycle refers to the four-step process that is followed by nearly all project managers when moving through stages of project completion. This is the standard project life cycle most people are familiar with. The Project Life Cycle provides a framework for managing any type of project within a business.
5. **ENVIROMENTAL IMPACT ASSESSMENT(EIA):** Environmental assessment is the assessment of the environmental consequences of a plan, policy, program, or actual projects prior to the decision to move forward with the proposed action.