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Engineering society

Question 1: <u>Scope of project</u>

- The project is first conceived by the management then it's possibility is discussed.
- The renovations company is enlisted to bring the project to reality
- The management comes to an agreement with the company on the duration of project, payment and workforce mobilization plans.
- A simple list of project requirement is drafted.
- A team of Professionals are brought to do a survey on the site.
- Removal of perishable items from the building e.g....airconditioners, ICT equipments,etc
- A perimeter of aluminium sheets is setup round the the building to secure the site and restrict movement to that area to avoid any accident.
- The roofing sheets are taken of examined then the reusable ones are separated from the rest.
- The labourers start work
- When the extra floors are complete the roofing sheets are set back
- The plumbers proceed to fixing the plumbing, the electricians do the wiring
- The painters and tilers come in to do their jobs.
- The debris from the constructions are removed and the

building is cleaned

- The initially removed equipment are reinstalled
- The barricades are removed and the building is set.

Question 2

Week Works	1	2	3	4	5	6	7	8	9	10	11	12
Pre analysis phase												
Feasibility study												
Project proposal												
Detailed study and analysis												
Initial Prototype												
Midterm defence												
Implementation of system												
Testing												
Documentation of project work												
Final defence												

Question 3

HUMAN RESOURCES NEEDED

- Civil supervisor {Lead consultant}
- Electrical supervisor
- Mechanical supervisor
- Surveyor
- Architect
- Carpenter
- Iron bender
- Painter
- Plumber

- **A surveyor** is a property specialist who can value a property, and assess it for any defects, future issues or problems.
- **An architect** is a person who plans, designs, and reviews the construction of buildings. To practice architecture means to provide services in connection with the design of buildings and the space within the site surrounding the buildings, which have as their principal purpose human occupancy or use.
- **A carpenter** is a person who works with wood. They can make cabinets, build houses, or do other things with wood.

- **A plumber** is a tradesperson who specializes in installing and maintaining systems used for potable water, sewage and drainage in plumbing systems.
- **An electrical supervisor** is someone who supervises the electrical aspect of the work
- **Civil supervisor** is someone who supervises the construction of the building
- **Mechanical supervisor** supervises the plumbing aspect

Question 4

The site was secured to prevent the risk of construction site accident, so the barricades were erected at a distance from which if any accident occurs, those outside the barricade won't be affected.

Question 5

BEME

S/N	TASK	MODULES	PECENTAGE	AMOUNT
1	Miscellaneous	. Bonus time . Feeding . Extra materials	10%	8,000,000
2	Consultancy Fee	. Doctors . Architect . Consultant	15%	12,000,000

3	Site Preparation	. Clearing of rubes . Barricading	5%	4,000,000
4	Transport cost	. Bringing of items to the site . Mobilization and Demobilizatio n . Importation of materials	12%	9,600,000
5	Profit		20%	16,000,000
6	Other expenses	. Final inspection . Final testing . Cost of material and equipment	38%	30,400,000
				80,000,000

Question 6

Payment schedule

S/N	ACTIVE DESCRIPTION	PERCENTAGE {%}	AMOUNT
1	Mobilization: Personnel/ Equipment vil supervisor ect supervisor chitecture	30%	24,000,000

2	30% of 50% completion: ecommissioning of electric system ecommissioning of security provisions e.g. Doors, Windows	20%	16,000,000
3	Complete/ Commissioning: nishing of civil work nishing of electrical work nishing and commissioning nal commissioning	40%	32,000,000
4	Retain 10% for 6 months: l electric connection working perfectly well umbing and other facilities working well This is to ensure that after 6 months everything is working well.	10%	8,000,000
			80,000,000

Question 7

BEME: Bill of Engineering Measurement and Evaluation

For all engineering works, it is required to know beforehand the probable cost of construction known as estimated cost. 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 any construction endeavor based on a pre-determined scope and specification

Defect Liability Period:

During this period, the client reports any defects that arise to the contract administrator who decides whether they are defects (i.e. works that are not in accordance with the contract), or whether they are in fact maintenance issues. If the contract administrator considers they are defects, then they may issue instructions to the contractor to make them good within a reasonable time.At the end of the defects liability period, the contract administrator prepares a schedule of defects, listing those defects that have not yet been rectified, and agrees with the contractor the date by which they will be rectified. The contractor must in any event rectify them within a reasonable time.

Lead Consultant:

This is a professional who is the the intermediary between the client and the consultant team, he speaks for all except is specific matters.

Project life cycle:

A project life cycle is the sequence of phases that a project goes through from its initiation to its closure. The number and sequence of the cycle are determined by the management and various other factors like needs of the organization involved in the project, the nature of the project, and its area of application. The phases have a definite start, end, and control point and are constrained by time. The project lifecycle can be defined and modified as per the needs and aspects of the organization. Even though every project has a definite start and end, the particular objectives, deliverables, and activities vary widely. The lifecycle provides the basic foundation of the actions that has to be performed in the project, irrespective of the specific work involved.

Characteristics of the Project Life Cycle:

- The Initiation Phase: Starting of the project
- The Planning Phase: Organizing and Preparing
- The Execution Phase: Carrying out the project
- The Termination Phase: Closing the project

Environment Impact Assesment(EIA):

Environmental assessment (EA) is the assessment of the environmental consequences (positive negative) of a plan, policy, program, or actual projects prior to the decision to move forward with the proposed action.