EXERCISES: PROJECT OWNER AND PROJECT DESIGNER

Maîtrise d'ouvrage (MOA) and Maîtrise d'œuvre (MOE) — Exercises

EXERCISE 1

For the design and construction of a public facility, including a dwelling, the architectural programme is as follows:

A. Dwelling

Room	Area (m²)	Room	Area (m²)
Children's bedroom	20	Kitchen	15
Parents' bedroom	25	Hall	12
Living room	32	Garage	14
Bathroom	6		

B. Administration

Designation	Quantity	Area (m²)
Reception hall	1	120
Director's office	1	30
Secretariat	1	16
Office	5	20
Garage	1	60
Sanitary facilities	2	4

a) Estimate the cost of the design and construction of this facility, given that:

• The VAT-inclusive cost of the built area for a similar project is 35,000 DA per m² of built area.

• The VAT-inclusive cost of external works and utility networks (electricity, water supply, gas, telephone, sewerage and boundary wall) is estimated at 700,000 DA. Miscellaneous expenses (laboratory, CTC—Technical Control of Construction, and publication costs) are estimated at 500,000 DA including VAT.

b) Determine the target design fee for this project, including and excluding VAT. The fee is set at 4% of the total project cost.

EXERCISE 2 (4 points)

The total built-up area of a public facility, according to the standard programme, is 800 m².

c) Provide a preliminary cost estimate for this facility, given that the excluding-VAT cost for a similar project—including furniture and external works/utility networks—is 50,000 DA per m² of built area. (2 points)

d) Estimate the percentage allocated to civil engineering and building works.

The estimated total is divided into the following categories and percentages, including the works category determined in question (d): 5% for design and supervision; 10% for utility networks (electricity, plumbing, gas and telephone); 20% for school furniture; the remainder is allocated to miscellaneous expenses (publication costs, CTC and soil investigation).

e) Calculate the estimate for each category, excluding and including VAT. (VAT = 19%; 2 points)

EXERCISE 3

To improve residents' living environment and strengthen school facilities in the western area of Tlemcen (Boudjmil), the authorities have decided to build a primary school for 200 pupils. The standard preliminary programme prepared by the Directorate of Education is as follows:

Designation	Area (m²)	No.	Designation	Area (m²)	No.
Classrooms	72	6	Corridors / circulation areas	16	6
Administration	60	1	Dining hall	200	1
Boys' and girls' toilets	24	1	Transformer station	12	1
Caretaker's lodge	8	1	Dwelling	80	1

The programme was sent to the Directorate of Public Facilities (DEP) to prepare the technical registration form for the project.

1. Estimate the cost of this project, given that the construction cost per m² of built area, including furniture, for a similar project is 52,000 DA including VAT. (3 points)

After the project was registered, and because it was urgent, the Wali (Governor) of Tlemcen instructed the Director of the DEP to invite BEREG to prepare the execution-design package so that the project could be launched. Following the DEP's procedures and a selective consultation, ENTB Tlemcen was selected to carry out the project.

2. Answer the following:

a) List the various stakeholders involved in this project. (2 points)

b) Define the project owner (maître d'ouvrage) and the project designer/consultant (maître d'œuvre). (2 points)

c) List the duties that make up the building project designer's scope of services. (2 points)

COURSE QUESTIONS

1. List the main stakeholders in a construction project.

2. Can the execution-design package be modified during construction? Explain. What documents make up the execution-design package?

3. How is the success of a project measured from the project owner's point of view?

4. What is the role of the project designer/consultant during the construction phase?

5. What duties must the CTC (Technical Control of Construction) perform before and during construction?

6. Assign the following tasks and responsibilities to the relevant stakeholder(s):

a) Schedule unannounced site visits.

b) Inspect and accept the reinforcement steel for all structural elements.

c) Review and approve structural engineering drawings (civil engineering).

d) Prepare the final contract amendment / closing addendum.

e) Sign and pay interim work statements / progress payment certificates.

f) Issue a formal notice of default to the contractor.

g) Initiate feasibility, opportunity and environmental impact studies for a project.

h) Prepare the construction schedule.

i) Prepare the works contract.

j) Prepare the site installation / site layout plan.