

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA  
SCHOOL OF ENVIRONMENTAL TECHNOLOGY  
DEPARTMENT OF QUANTITY SURVEYING



SECOND SEMESTER EXAMINATION 2018/2019 SESSION

COURSE CODE: QTS525 COURSE TITLE: *Cost Control II*

TIME ALLOWED: 2 ½ Hours

CREDIT LOAD: 3 Units

INSTRUCTION: i. Attempt all questions.

ii. The Tables attached (Appendix) should be used where necessary.

- 1a. Differentiate between Cost Planning and Cost Control. ----- 9 Marks
- b. Highlight and briefly discuss the procedure for cost control. ----- 9 Marks
- c. Discuss the sources of financing construction projects. ----- 7 Marks
- 2a. What do you understand by Cost-in-use Studies? ----- 7 Marks
- b. What are the challenges of cost assessment in Cost-in-use Studies? ----- 8 Marks
- c. What is the present value of the running costs of a building with a life of sixty (60) years, given that annual cleaning costs are =N= 80,000.00, annual decorations, =N= 30,000.00 and annual repairs, =N= 20,000.00, external painting, =N= 200,000.00 every five (5) years, and a new roof will be required every thirty (30) years at =N= 2,000,000.00? Interest is to be taken at six per cent (6%). ----- 10 Marks
- 3a. i. Differentiate between Life Cycle Costing and Whole Life Cycle Costing. ----- 2.5 Marks
- ii. What are the key areas upon which the successful application of Whole Life Cycle Cost lies? ----- 2.5 Marks
- b. With the aid of mathematical expression and a neat diagram, illustrate the components of a Whole Life Cycle Cost Model. ----- 5 Marks
- c. Compare the costs – in – use of the following alternative building schemes and make a decision accordingly. ----- 15 Marks
- Scheme 1:** Total cost of building is =N=10,000,000.00 including Architect's and Surveyor's fees on a site costing =N=2,000,000.00. Annual running costs are estimated at =N=300,000.00. Certain services and finishing will require replacing at a cost of =N=1,200,000.00 every twenty (20) years. Other services have an estimated working life of thirty (30) years and a replacement cost of =N=1,600,000.00.
- Scheme 2:** Total cost of building is =N=13,000,000.00 including Architect's and Surveyor's fees on a site costing =N=2,000,000.00. Annual running costs are estimated at =N=240,000.00. Certain services and finishing will require replacing at a cost of =N=800,000.00 every twenty (20) years. Other services have an estimated working life of thirty (30) years and a replacement cost of =N=1,000,000.00.
- N.B**
- In both cases the estimated life of the building is sixty (60) years. Take an interest rate of six per cent (6%) and an annual sinking fund (ASF) of three (3%).
- 4a. i. Briefly discuss the concept of Cash Flow Forecasting in relation to construction industry. ----- 4 Marks
- ii. Enter the following transactions in a cash flow statement for Period 7. ----- 6 Marks

2/07/2018: Loan from Bank to finance project	=	=N= 1,456,000.00
5/07/2018: Sale of landed property to finance project	=	=N= 312,500.00
12/7/2018: Payment for prime cost items	=	=N= 789,000.00
16/7/2018: Settlement of Design & Professional fees	=	=N= 80,000.00
19/7/2018: Land charges	=	=N= 40,000.00
27/7/2018: Legal and agency fees	=	=N= 65,000.00

b. Briefly discuss the concept of Investment Appraisal.

----- 5 Marks

c. Using the Pay Back Method, appraise the project options summarised in the Table below.

----- 10 Marks

Table 4c: Cash Flow Statement for Projects A and B

Cash Flow Year	A (=N=)	B (=N=)
0	-100,000	-100,000
1	30,000	50,000
2	40,000	40,000
3	20,000	30,000
4	30,000	-
5	20,000	-