



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF NATURAL RESOURCES AND SPATIAL SCIENCES

DEPARTMENT OF LAND AND PROPERTY SCIENCES

QUALIFICATION(S): BACHELOR OF PROPERTY STUDIES DIPLOMA IN PROPERTY STUDIES	
QUALIFICATION(S) CODE: 08BPRS 06DPRS	NQF LEVEL: 6
COURSE CODE: PMT611S	COURSE NAME: PROPERTY MAINTENANCE
EXAMS SESSION: JULY 2019	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 100

SECOND OPPORTUNITY/SUPPLEMENTARY EXAMINATION QUESTION PAPER	
EXAMINER(S)	ELINA TEODOL
MODERATOR:	SAMUEL ATO K. HAYFORD

<p style="text-align: center;">INSTRUCTIONS</p> <ol style="list-style-type: none">1. Read the entire question paper before answering the Questions.2. Please write clearly and legibly!3. The question paper contains a total of 5 questions.4. You must answer <u>ALL QUESTIONS</u>.5. Make sure your Student Number is on the EXAMINATION BOOK(S).

PERMISSIBLE MATERIALS

1. None

THIS QUESTION PAPER CONSISTS OF 6 PAGES (Including this front page)

Question 1

For each of the following statements indicate whether it is 'TRUE' or 'FALSE'. Each correct answer carries 1 mark. (20)

- a) Routine maintenance involves tasks that are done immediately in order to prevent further damage or serious impacts on building fabric.
- b) The economic life of a building is the period of time it can be used in the production of assets or services.
- c) Defects occur in various forms and to different extent in all types of buildings, irrespective of age.
- d) A latent defect is a defect or problem that has a significant adverse impact on the appearance, safety, usability and value of a product, system or property.
- e) Category C buildings includes shops, flats and offices in a suburban area or out of the city centre where public relations or prestige value is not as high as in category A. This category of building can be maintained at a lower level.
- f) Rectification is the process done in the early stages of a building in order to correct shortcomings in design or faults in early stages of a building.
- g) Prioritising of maintenance work is a process of assessing the urgency of required maintenance work and ranking the work accordingly.
- h) Condition-based maintenance is a preventive maintenance initiated as a result of knowledge of the condition which is done to identify and rectify a fault.
- i) Maintenance standard is concerned about determining the optimum level of maintenance work required on a building.

- j) The essential basic improvements that are needed in a standard house include the provision of an internal water closet, bath, wash hand basin, improvement of services and provision of fittings.
- k) Retrofit refers to upgrading certain building system such as electrical, mechanical or structural to improve performance or appearance
- l) The building structure must be thoroughly examined to determine its stability and volatility for conversion.
- m) Tendering is the process of inviting interested companies to make offers for supplying of specific goods and services and choosing the best and inexpensive company to supply a goods and services.
- n) Alteration is the modification of existing structures to make them more resistant to seismic activity, ground motion, or soil failure due to earthquakes.
- o) The specification of maintenance work forms as an important document on building maintenance, conversion and improvements contracts as it constitutes a schedule of instructions to the contractor and prescribes the materials and workmanship requirements.
- p) The bill of quantities is a schedule of all the items of labour and materials needed to complete the construction of a property.
- q) All participants, clients, consultants and contractors, have the opportunity to propose and ultimately impose the procurement methods most appropriate to them.
- r) Adequate supervision of new construction, alteration and repair work is needed to ensure that the materials and workmanship comply with the client particulars and relevant building requirements.
- s) Building estimates are prepared by quantity surveyor only for a particular purpose.

- t) A person supervising building work should keep records of site visits, noting dates, weather conditions, labour force, materials delivered to site, work in progress and any other important aspects.

[20]

Question 2

- a) Briefly distinguish between the following as used in property maintenance;
- i) Planned maintenance and Unplanned maintenance (3)
 - ii) Preventive maintenance and Emergency maintenance (4)
 - iii) Maintenance standards and modernisation (3)
- b) Identify the three (3) essential ingredients of the building conversion process. (3)
- c) Enumerate five (5) advantages of using In-house labour and any six (6) advantages of outsourcing. (11)

[24]

Question 3

- a) Building inspectors are often instructed by property owners or prospective purchasers to determine the extent of maintenance and repair work. Outline the eight (8) basic requirements of a good report on the structural and sanitary condition of property. (8)
- b) Briefly explain the difference between the following as used in property maintenance industry:
- i) Structural defects and Non-structural defect (4)
 - ii) Corrective and Cosmetic Maintenance (4)
- c) State the three (3) types of planning charts that can be used for scheduling maintenance jobs. (3)

- d) Building maintenance is of great significance to the economy not only because of the scale of expenditure involved but as a factor of production and of accommodation. Outline four (4) factors that influence maintenance of any building. (4)

[23]

Question 4

- a) Define the following terms as used in property maintenance.
- i) Servicing (1)
 - ii) Rectification (1)
 - iii) Replacement (2)
 - iv) Inspection report (2)
- b) Distinguish between Variable and Managed Expenditure. (3)
- c) Use a table to describe rating of condition and performance standards for buildings, facilities and equipment. (10)

[19]

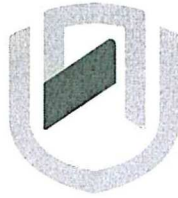
Question 5

- a) Tender document helps to maintain and protect the relationship between client and contractor. List any ten (10) documents to be included as part of the Tender documents in the preparation to invite tenders (5)
- b) State the eight (8) basic principles of tendering process in the construction industry. (4)
- c) Mr. Kaveterua owns Mbemumuna & Sons Property Maintenance Company. To achieve the company's objective, he must consider several strategies for contracting out maintenance work. Outline the four (4) type of maintenance contracts in building maintenance that he may adopt. (2)

d) State the three (3) causes of Contract changes in the building maintenance industry. (3)

[14]

All the best of luck.



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EXAMS SESSION: JUNE 2019	PAPER: THEORY
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FIRST OPPORTUNITY EXAMINATION QUESTION PAPER

EXAMINER(S)	ELINA TEODOL
MODERATOR:	SAMUEL ATO K. HAYFORD

INSTRUCTIONS

1. Read the entire question paper before answering the Questions.
2. Please write clearly and legibly!
3. The question paper contains a total of **5 questions**.
4. You must answer **ALL QUESTIONS**.
5. Make sure your Student Number is on the EXAMINATION BOOK(S).

PERMISSIBLE MATERIALS

1. None

THIS QUESTION PAPER CONSISTS OF 5 PAGES (Including this front page)

Question 1

For each of the following statements indicate whether it is 'TRUE' or 'FALSE'. Each correct answer carries 1 mark. (20)

- a) The maintenance of property and estates has long been portrayed as attractive.
- b) All elements of building deteriorate at a greater or lesser rate depending on the size of the building, methods of construction, and the structure of the building.
- c) Molds are found everywhere inside and outside the building and can be caused by prevalent condition. However, water damage cannot be categorised as part of the common causes of mold.
- d) Patent defects are those which can be discovered by reasonable inspection.
- e) Building restrictions are the requirement in building codes that affect the size and appearance of the building.
- f) Latent defects are those which cannot be discovered by reasonable inspection.
- g) If you have a home with a history of subsidence you may have difficulty getting insurance cover.
- h) Building defects occur only in the old building.
- i) It is a statutory requirement that a high-rise building must be inspected for fire safety every 3 months and all other buildings are to be inspected once per year.
- j) On average, buildings need to be repainted every six years.
- k) It is the property owner's choice to treat the base of all foundation trenches of his/her property against termites before the casting of foundations.

- l) Corrective maintenance is the type of maintenance initiated as a result of knowledge of the status of affairs of an item from routine or continuous monitoring.
- m) Buildings are required to meet certain standards relating to sanitation, safety, quality, reliability, perception, satisfaction and security.
- n) The essential basic improvements that are needed in a house include the provision of an internal water closet, bath, wash hand basin, air conditioners, ceramic tiles and rhino board ceilings.
- o) Retrofit refers to upgrading certain building materials in the house such as tiling works, paintworks and paving.
- p) Rehabilitation of a building means returning a building or a structure to a useful state by means or repair, modification, or alteration.
- q) The goal of using contractors and outsourcing is to get maintenance or construction work done at a higher quality, faster, safer or at high cost than it would be possible with the company's crew.
- r) The building structures must be thoroughly examined in order to determine its solidity and suitability for conversion.
- s) When the specification of maintenance work is accompanied by building plans it should amplify, not repeat and certainly never contradict, the information given on the building plans.
- t) The bill of quantities is a schedule of all the items of labour and materials needed to complete the construction of a property.

[20]

Question 2

- a) Dyllan is a property maintenance manager. He has been contracted to perform all of the typical duties of a property manager. Outline the four (4) main duties expected of Dyllan as a property maintenance manager. (4)
- b) Distinguish between the following terms as used in property maintenance.
- i) Obsolescence and Redundancy (6)
 - ii) Conversion and Remodeling (2)
 - iii) Restoration and Refurbishment (2)
- c) State the eight (8) basic principles of tendering process in the construction industry. (4)
- d) State the three (3) types of inspections under planned structural maintenance. (3)
- e) With the aid of a diagram, demonstrate the two main types of maintenance and their respective categories of maintenance management approaches. (4)

[23]

Question 3

- a) Building inspectors are often instructed by property owners or prospective purchasers to inspect and report on the condition of property. Outline the nine (9) basic requirements of a good Building Defects Survey report that can be understood by a layman. (11)
- b) Identify the four (4) primary stages of the building conversion process and their respective components. (4)
- c) Information for use in preparation of building specification for maintenance work can be obtained from a variety of sources. List eight (8) principal sources of information for building maintenance, conversion and improvements contracts. (4)
- d) With the aid of a diagram show the six (6) stages of Tendering in the construction industry. (3)

[22]

Question 4

- a) Mr. Jarson owns Jarson & Sons Property Maintenance Company. To achieve the company's objective, he must consider several strategies for contracting out maintenance work. Outline the four (4) type of maintenance contracts in building that he may adopt. (2)
- b) Distinguish between Variable and Managed Expenditure. (4)
- c) Majority of builders still obtain much of their work by system of tendering. State the three (3) principal methods of choosing a contractor through tendering in the construction industry. (3)
- d) Outline the three (3) common problem in property maintenance (3)
- c) State the three (3) causes of Contract changes in the building maintenance industry. (3)

[15]**Question 5**

- a) Briefly discuss the main Maintenance Budgets that can be employed for maintenance work. (13)
- b) Identify the main maintenance budgets and briefly elaborate on the comparison between them. (7)

[20]

All the best of luck