FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA

SCHOOL OF INFORMATION AND COMMUNICATION TECHNOLOGY

DEPARTMENT OF INFORMATION AND MEDIA TECHNOLOGY

FIRST SEMESTER 2015/2016 EXAMINATION

COURSE CODE:	CIT 518
COURSE TITLE:	PROJECT MANAGEMENT in IT
CREDIT UNITS:	2
TIME ALLOWED:	2HRS, 30MINS.
COURSE LECTURER(S):	DR. I. O. OYEFOLAHAN
NUMBER OF QUESTIONS:	20 MCQ & 3 ESSAY QUESTIONS
NUMBER OF PAGES:	8 (INCLUDING THIS PAGE)

INSTRUCTIONS

- Answer all questions
- Do **not** use red pen
- Please use a clear handwriting
- This exam is closed book, closed notes, closed laptop and closed cell phone
- Please use non-programmable calculators only

SECTION I: MULTIPLE CHOICE QUESTIONS (20 marks).

Choose the one alternative that best completes the statement or answers the question.

1. The _____ model attempts to compress the analysis, design, build, and test activities of the SDLC into a series of short iterations or development cycles.
    a) Rapid Application Development (RAD)
    b) Waterfall
    c) Prototyping
    d) Spiral
    e) eXtreme Programming

2. Within the Project Charter, _____ defines the work to be completed.
    a) Project description
    b) Statement of Work
    c) MOV
    d) Project Scope
    e) Project Administration

3. Which of the following statements are true?:
    a) Milestones are logical units of work.
    b) Baseline plans are approved project plans.
    c) All tasks are linear, i.e. have to be completed in a particular sequence.
    d) The kick-off meeting typically begins the planning phase of a project.
    e) MOV are readily changed through change control processes.

4. Clear authority and responsibility, improved communication, and a high level of integration are advantages of:
    a) The Functional Organization
    b) The Matrix Organization
    c) The Project-Based Organization
    d) The Informal Organization
    e) The Formal Organization

5. The attributes commonly used in a stakeholder analysis include:
    a) Interest
    b) Influence
    c) Role
    d) All of the above
    e) None of the above

6. _____ helps to define detail work packages that will be used to estimate the project schedule and budget.
    a) project scope statement
    b) project charter
    c) project plan
    d) deliverable structure chart
    e) deliverable definition table

7. The term scope creep is best described as:
   a) a project team's inability to define the project's scope
   b) a fundamental change in project scope
   c) the project slowdown caused by changes in the project MOV
   d) increasing featurism
   e) a scary mouthwash salesman

8. Which of the following processes of Scope Management Process ensuring that controls are in place to manage proposed scope changes once the project's scope is accepted?
   a) Collect Requirements
   b) Define Scope
   c) Create Work Breakdown Structure
   d) Verify Scope
   e) Control Scop

9. All of the following are true concerning change controls *except*:
   a) Change controls must: document stakeholders authorized to submit changes.
   b) Change controls must: ensure that a process is in place to evaluate the value of a proposed change.
   c) Change controls must: help the project manager manage change so that it does not disrupt the team.
   d) Change controls must: include emergency procedures
   e) Change controls must: determine whether an accepted change has been implemented

10. Executing processes:
   a) Signal the beginning of the project or phase.
   b) Requires an organization to make a commitment of time and resources.
   c) focus on integrating people and resources to carry out the planned activities.
   d) supports planning of the entire project and each individual phase
   e) none of the above

11. The _____ model is commonly used for large government systems and by companies that develop shrink-wrap or commercial software packages.
   a) Rapid Application Development (RAD)
   b) Waterfall
   c) Prototyping
   d) Spiral
   e) eXtreme Programming

12. The most complex organizational structure is the:
   a) The Functional Organization
   b) The Matrix Organization
   c) The Project-Based Organization
   d) The Informal Organization
   e) The Formal Organization

13. The attributes commonly used in a stakeholder analysis include:
    a) Interest
    b) Influence
    c) Role
    d) All of the above
    e) None of the above

14. Higher potential for conflict and poor response time are disadvantages of:
    a) The Functional Organization
    b) The Matrix Organization
    c) The Project-Based Organization
    d) The Informal Organization
    e) The Formal Organization

15. The concept of actors is an integral part of:
    a) Data flow diagram
    b) Use case diagram
    c) Joint application development session
    d) Deliverable structure chart
    e) Deliverable definition table

16. Which of the following is a product-oriented scope definition tool?
    a) context level data flow diagram
    b) deliverable structure chart
    c) deliverable definition table
    d) work breakdown structure
    e) none of the above

17. Which of the following statements about the work breakdown structure (WBS) is not true?
    a) The WBS provides a hierarchical structure that outlines the activities or work that needs to be done in order to complete the project scope.
    b) The WBS should support the project's MOV
    c) The WBS should be developed by the project manager.
    d) The WBS provides a framework for developing a tactical plan to structure the project work.
    e) The WBS provides a bridge or link between the project's scope and the detailed project plan

18. To be effective, each project phase should provide at least ___ deliverable(s).
    a) one
    b) two
    c) three
    d) as many as needed
    e) a project phase does not need to produce a deliverable

19. With _____, activity estimates are usually provided by the team members.
    a) Guesstimating
    b) Delphi Technique
    c) Time Boxing
    d) Top-Down Estimating
    e) Bottom-Up Estimating

20. An entity or data set that includes customer names and addresses that is maintained by another application system would be called an:
    a) Internal Logical File (ILF)
    b) External Interface File (EIF)
    c) External Input process (EI)
    d) External Output (EO)
    e) External Inquiry (EQ)

SECTION II: ESSAY QUESTIONS (60 marks)
Answer ALL Questions

QUESTION 1 (30 marks)

An old generation bank that operates in Minna has found that the rate at which customers discontinued their patronage of the bank's products and services is higher compared to the acquisition of new customers and their capacity to compete with other banks seems to be falling. Consequently, the CEO of the bank called for internal stakeholders meeting and several suggestions were made on how to fine-tune the bank for competitiveness. One of the suggestions considered to be a viable option came from the electronic banking department manager who suggested the need for an IT project called Customer Relationship Management System (CRM). The aim of the project is to create a focused products and services differentiation. Giving that in addition to the electronic banking department, there are four additional departments: loan servicing, wealth management, deposit operations and wire transfer operations each headed by a manager, and that the bank's goal is to gain competitive advantage by developing good relationship with customers, use the criteria below to develop a business case for the proposed project.

A. As a project manager, how would you select the core team that will provide input in the development of the business case **(5 marks)**

B. Specify at least 4 benefits that your team selection approach in A would provide for the business case **(5 marks)**

C. Specify the overall goal and measure of success of the project in the form of measurable organizational values (MOV) that focuses on a potential area of impact

(5 marks)

D. Specify at least two alternatives for the development of the project **(5 marks)**

E. What feasibilities would you take into consideration in the preparation of the business case **(5 marks)**

F. Assuming you will work with others later to determine total cost of ownership and analyze the alternatives, what total benefits of ownership can you state for the proposed project? **(5 marks)**

QUESTION 2 (15 marks)

Given that there is a manager for each of the bank's departments mentioned in Question 1, and that another manager in–charge of wealth management department proposed a project but which the senior management did not recommend, perform:

A. The stakeholder analysis that aims at ensuring success for the project based on the following table: **(7 marks)**

Stakeholders	Interests	Influence	Potential Conflicts	Role	Objective	Strategy

B. In conducting stakeholder analysis, why is it important not only to identify those who will gain from the project's success, but also those who may gain from its failure? **(5 marks)**

C. Why would the project manager and project team not want to make a stakeholder analysis public to the entire organization? **(3 marks)**

QUESTION 3 (15 marks)

Given that a Transactional System (daily routine system) is to be developed by ABC Nig. Ltd., and the information in Tables A, B, and C below specify the attributes of the system in terms of components and the level of complexities involved. In addition to the specifications given in the tables, the project sponsor wants Java programming language to be used by the project team to develop the system because of its cross-platform capability. Assuming that the average source (LOC) per function point (FP) for Java language is 53, calculate the followings:

A. The function points (FP) of the system based on its five data and transactional types that define the application boundary

(5 marks)

B. Based on your result in A, use COCOMO model to estimate the duration as well as the number of people required to build the system.

(10 marks)

Hints; System complexity types:

Organic: Person-Month = 2.4 x KDSI $^{(1.05)}$
Duration = 2.5 x Effort $^{(0.38)}$

Semi-Detached: Person-Month = 3.0 x KDSI $^{(1.12)}$
Duration = 2.5 x Effort $^{(0.35)}$

Embedded: Person-Month = 3.6 x KDSI $^{(1.20)}$
Duration = 2.5 x Effort $^{(0.32)}$

Where KDSI = Thousands of delivered source instruction i.e. LOC

Table A

	Complexity		
	Low	Average	High
Internal Logical Files	----- x 7	----- x 10	----- x 15
Externar Interface Files	----- x 5	----- x 7	----- x 10
External input	----- x 3	----- x 4	----- x 6
External Output	----- x 4	----- x 5	----- x 7
External Inquiry	----- x 3	----- x 4	----- x 6

Table B

	Complexity		
	Low	Average	High
Internal Logical Files	4	2	0
Externar Interface Files	0	1	0
External input	3	2	0
External Output	5	7	3
External Inquiry	2	5	2

Table C

General System Characteristics	Degree of Influence
Data Communications	2
Distributed data processing	3
Performance	3
Heavily used configuration	4
Transaction rate	4
Online data entry	2
End user efficiency	2
Online update	2
Complex processing	2
Reusability	3
Installation date	2
Operational ease	2
Multiple sites	1
Facilitate change	1
Given: Value Adjusted Factor (VAF) = (TDI*0.01) + 0.65	

END OF EXAMINATION!!!