**JOMO KENYATTA UNIVERSITY OF AGRICULTUREAND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2017/2018 ACADEMIC YEAR**

**FIRST YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF**

 **BACHELOR OF SCIENCE IN OPERATION RESEARCH.**

**STA 2151: FUNDAMENTALS OF PROJECT MANAGFEMENT**

**DATE: JANUARY 2018 TIME:2 HOURS**

**INSTRUCTIONS:**

1. Answer question ONE COMPULSORY and any other TWO questions.
2. Programmable calculators are prohibited

**QUESTION 1 COMPULSORY (30 MARKS)**

1. a) Define the following terms as used in fundamentals of project management (4 marks)
2. A project
3. Project management

b) State and explain in details the first rule of project management. (5 marks)

c) When is managing a project not considered as project management? Discuss (5 marks)

d) Define the term leadership hence identify the three factors that represent the management of the job to be done. (5 marks)

e) Explain scheduling as one of the common misconceptions about project management (5marks)

f) Consider the report in the table shown below showing earned value figures for a project given in dollars. Answer the questions that follow by analyzing the data:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Cumulative-to- date |  |  | Variance  |  | At completion  |  |  |
| WBS | BCWS | BCWP | ACWP | SCHED | COST | BUDGET | LEST | VARIANCE |
| 301 | 800 | 640 | 880 | -160 | -240 | 2400 | 2816 | -416 |

1. Is the task ahead or behind schedule? And by how much? (2 marks)
2. Is the task overspent or underspent? And by how much? (2 marks)
3. When the task completed, will it be overspent or underspent? (2 marks)

**QUESTION 2 (20 MARKS)**

1. Describe the appropriate life cycle of a given project explaining all the procedures involved. (15marks)
2. State and explain the key terms used in a project network (5 marks)

**QUESTION 3 (20 MARKS)**

1. Identify and explain in details the steps involved in managing a project (12 marks)
2. State and explain the items that make up the project plan. (8 marks)

**QUESTION 4 (20 MARKS)**

1. Differentiate between the following terms as used in project management giving an example in each case
2. Project integration management vs Project scope management (3 marks)
3. Project time management vs Project cost management (3 marks)
4. Project quality management vs Project human resource management ( 3 marks)
5. Project communications management vs Project risk management (3 marks)
6. Identify and explain the factors that constrain a given project hence write down the mathematical relationship among the constraints (8 marks)

**QUESTION 5 (20 MARKS)**

Case study question

Choose a project that you would like to do or perhaps you have started doing. Answer the questions that follow to the best of your ability. Remember the people who have to follow the plan of the project should participate in preparing it.

1. What are you trying to achieve with the project? What needs do it satisfy for your customer? Who is exactly is going to actually use the project deliverables when it’s finished? What will distinguish your deliverables from those already available to the customer? (12marks)
2. Write a problem statement on the basis of your answer to the first question. What is the gap between where you are now and where you want to be? What obstacles prevent easy movement to close the gap? ( 5 marks)