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**University Examinations 2015/2016**

THIRD YEAR, FIRST SEMESTER EXAMINATION FOR THE DIPLOMA IN CIVIL ENGINEERING

**ECV 2306: PROJECT MANAGEMENT II.**

**DATE: AUGUST 2016 TIME: 11/2 HOURS**

**INSTRUCTIONS: -** *Answer question* ***one*** *and any other* ***two*** *questions*

**QUESTION ONE (30 MARKS)**

1. Define planning in project management (1 mark)
2. Identify six steps that are followed when planning for any project (6 marks)
3. Describe the difference between a work breakdown structure and an organization breakdown structure. (4 marks)
4. When carrying out project planning, explain why it is beneficial to consider the resources in the determination of the logical relationship among activities that use the same resources. (2 marks)
5. Describe two differences between AOA and AON modes of representation as used in the generation of an activity network diagram (4 marks)
6. Discuss two advantages of AOA (2 marks)
7. Explain the importance of a WBS in project management. (6 marks)
8. Explain five characteristics of a project. (5 marks)

**QUESTION TWO (15 MARKS)**

1. (i) Define CPM (2 marks)

(ii) Discuss the limitations of CPM method of scheduling (5 marks)

1. Given the following information

|  |  |  |
| --- | --- | --- |
| ACTIVITY | PRECEDING ACTIVITY | DURATION |
| A  B  C  D  E  F  G  H | -  A  A  B  B,C  E  D,F  G | 2  10  8  10  7  9  3  5 |

Draw the network diagram and determine the critical path and duration for the project. (8 marks)

**QUESTION THREE (15 MARKS)**

1. Outline two main reasons why time-cost trade-off is necessary in project management. (2 marks)
2. Explain the three forms of scheduling (6 marks)
3. Describe the three mechanisms for project control (6 marks)
4. Explain one advantage of scheduling. (1 mark)

**QUESTION FOUR (15 MARKS)**

1. List three advantages of resource levelling. (3 marks)
2. Discuss the limitations of network analysis. (4 marks)
3. Discuss the shortcomings of the PERT method (4 marks)
4. List four advantages of bar charts. (4 marks)