

**W1-2-60-1-6**

**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2016/2017**

**YEAR I SEMESTER I/II EXAMINATION FOR THE DEGREE OF MASTER OF SCIENCE IN PROJECT MANAGEMENT**

# HEPM 3104: PROJECT MANAGEMENT INFORMATION SYSTEM

**DATE: JULY, 2017**  **TIME: 3 HOURS**

**INSTRUCTIONS: Answer Question ONE and Any Other THREE Questions.**

**Question One**

a) The following are some of the key prints in project set-up and definition.

1.1 Create project management plan. [5 marks]

1.2 Establish clear statements of what is to be done. [5 marks]

1.3 Establish time and duration. [5 marks]

1.4 Establish resources required. [5 marks]

Based on a project to set-up a new- hospital dispensary at your local home area.

Establish the relevant pm-tools you would use to activate the four key points above. (Use diagrams to key points above. (use diagrams to illustrate).

b) i. Describe four characteristics of Gnatt chart. [4 marks]

 ii. Describe the four formats of work break down structure. (illustrate with diagrams.) [6 marks]

**Question Two**

a) The following are tasks and events for company ABFF corporate outing, as a project manager you have been appointed to develop a work breakdown structure – WBS for the event planning.

 Planning.

 Supervision, budget planning, improvement and reconciliation, coordination issues.

 Catering

 Menu, shopping, cooking, serving.

 Area and activities

 Area tables and chairs, utensils, decorations and equipment.

 Participants/guests

 Invitations, guests list, RSVP, special needs.

 Staff

 Drivers, cooks, servers, hosts, clean up.

 Entertainer

 Invitation, logistic issues, playlist coordination

 Required;

 i. Develop the following WBS construction methods for the above task and events.

 i. Deliverable – oriented WBS

 ii. process- centered WBS

b) Describe four significance of a WBS for project managers. [3 marks]

c) Describe four teams who may use WBS tools. [3 marks]

**Question Three**

a) A project consists of ten activities, A-J. The duration (in days) of each activity, and the activities preceding each of them are as follows:

|  |  |  |
| --- | --- | --- |
| Activity  | Duration  | Preceding activities  |
| A | 10 | - |
| B | 4 | - |
| C | 8 | B |
| D | 6 | C |
| E | 8 | I |
| F | 5 | - |
| G | 10 | A,D |
| H | 2 | G |
| I | 4 | - |
| J | 10 | D,F,I |

1. Construct an activity network for this project. [6 marks]
2. Find a critical path in this activity network. [2 marks]
3. Find the latest starting time for each activity. [2 marks]

b) Using the information in table 1, assuming that the protect team will work a standard working week (5 working days in 1 week) and that all tasks will start as soon as possible.

|  |  |  |  |
| --- | --- | --- | --- |
| Task | Description  | Duration  | Predecessors  |
| A | Requirement analysis  | 5 |  |
| B | System design  | 15 | A |
| C | Programming  | 25 | B |
| D | Telecoms  | 15 | B |
| E | Hardware installation  | 30 | B |
| F | Integration  | 10 | C,D |
| G | System testing  | 10 | E,F |
| H | Training/support  | 5 | G |
| I | Hard over and go-live | 5 | H |

1. Develop an activity network for this project. [4 marks]
2. Determine the critical path of the project. [2 marks]
3. Calculate the planned duration of the project in weeks. [2 marks]
4. Identify any non-critical task and the float (free slack) on each. [2 marks]

**Question Four**

The following is a project success chart for baking a cake.

Project objective (what will be achieved by when).

Bake a cake in time for my daughter’s birthday party.

Project deliverables (what will be delivered by when.)

One 2-layer chocolate cake with pokemon decorations, in time for the birthday party.

Success criteria (what will meet or exceed the expectation of each stakeholder.

Stakeholders Success criteria

1. Daughter 1. Choclate cake, pokemon decorations, on time.

2. Parents 2. Reasonable cost, on time

3. Birthday party guest 3. Sufficient quantity, tarte on time.

Required;

Based on the above project success chart develop the following charts which are vital to the

success of the project.

1. Work breakdown structure. [4 marks]
2. Hologram chart [3 marks]
3. Task duration table [3 marks]
4. Project network diagram [4 marks]
5. Gantt chart schedule [4 marks]
6. Project budget chart [2 marks]