

UGANDA MARTYRS UNIVERSITY NKOZI

UNIVERSITY EXAMINATIONS

FACULTY OF SCIENCE

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION SYSTEMS

END OF SEMESTER FINAL ASSESSMENT

SEMESTER I, 2018/19

THIRD YEAR EXAMINATIONS FOR BACHELOR OF SCIENCE IN
INFORMATION TECHNOLOGY

INFORMATION SYSTEMS PROJECT MANAGEMENT – RUBAGA& NKOZI

Code: CSC 3104

DATE: 7TH DECEMBER, 2018

TIME: 9:30 AM – 12:00 PM

DURATION: 4 HRS

Instructions:

1. DO NOT OPEN THIS EXAM UNTIL YOU ARE TOLD TO SO.
 2. THE EXAM CONTAINS TWO SECTIONS (THEORY (Section A) AND PRACTICAL (Section B).
 3. THE PRACTICAL SECTION IS COMPULSORY AND ANSWER ANY THREE QUESTIONS IN THE SECTION A
 4. SPEED AND ACCURACY ARE KEY IN THIS EXAM.
 5. ANSWER THE EXAM WITH TIME IN MIND
 6. ALL ROUGH WORK SHOULD BE IN YOUR ANSWER BOOKLET
 7. WHERE APPLICABLE ALL COMPUTATIONS MUST BE CLEARLY GIVEN
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SECTION A-Theory
Answer any three (3) questions in this Section

Question1

a) Briefly explain the following terms in relation to Project Management

@ 2 marks)

- i) Critical activity
- ii) Critical path
- iii) Float of an activity
- iv) Earliest Finish Time
- v) Latest finish time of an activity

b) Briefly explain the three constraints in any project

(6 marks)

c) Briefly explain any three feasibility studies that should be carried out before implementing an IT project

(9 marks)

Question 2

The table below gives data about an IT project

Activity	Duration (hrs)	Precedence	Cost per hr (\$)
A	8	-	90
B	12	-	70
C	5	-	90
D	6	A, B, C	50
E	4	A, B, C	100
F	5	D, E	70
G	5	E	60
H	5	E	40
K	5	G	65
L	4	H, K	55

a) What is the the project cost

(5 marks)

b) Develop a Gantt chart for the project

(6 marks)

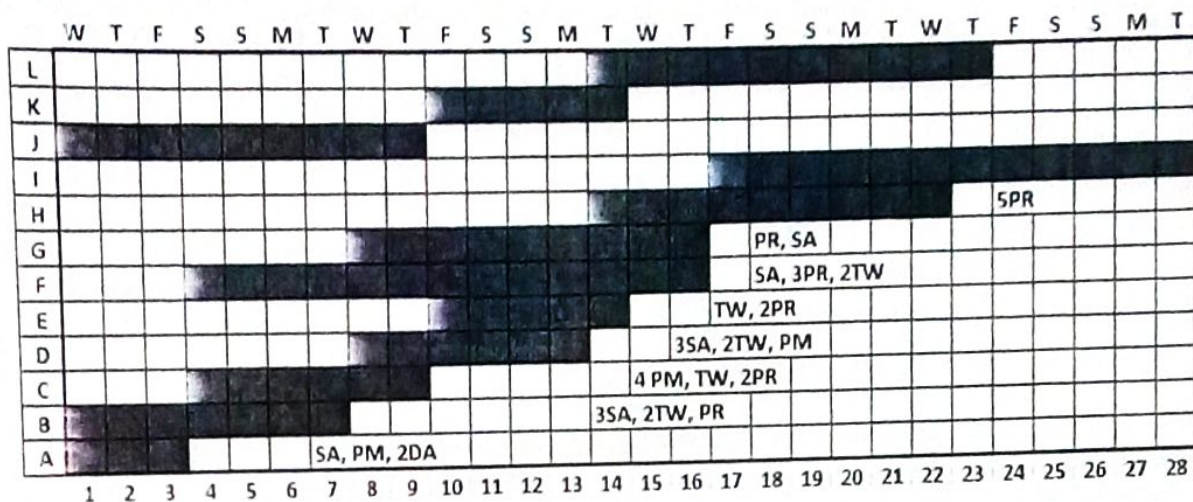
c) Develop a fully labeled network diagram

(10 marks)

d) Which activities are not on the critical path

(4 marks)

Question 3



The Gantt chart above represents activities of a project.

- Use the Gantt chart to develop a dependency table for the project (order of columns: Activity- Alphabetically arranged, Precedence, Duration) – Duration should be based on actual work-days. Note Saturday and Sunday are non-working days (6 marks)
- Determine the total resource cost of each of the activities B and C if PM is paid \$200 per day, TW is paid 70%, PR is paid 85%, SA is paid 80%, DA is paid 60%. The percentages are per day and based on PM's rate. (6 marks)
- Compute the EFT and LST for activities D and G (4 marks)
- How many PRs and how many TWs are required on day 14 (4 marks)
- Each working day is six hours and each hour has an overhead cost of \$15. How many hours are required to complete activity G and what is its overhead cost (5 marks)

Question 4

The table below gives data related to executing an IT project

Activity_ID	After	Duration	Resource 1	Resource 2
A	-	2	3	2
B	A	8	4	6
C	A	6	8	6
D	A	4	6	5
E	A	3	4	1
F	B	12	2	0
G	C, D	4	7	9
H	C, D, E	6	9	5
K	F, G, H	3	2	0

Note: (1) All durations are in working days. (2) resource columns indicate number of workers required per day.

- Draw a fully labeled diagram for the project (8 marks)
- Draw separate resource usage charts for Resource 1 and Resource 2. (8 marks)
- Each resource is paid \$90 per day. Payments are every 10 days. Develop a payment schedule (9marks)

SECTION B – Practical (Compulsory - 25 marks)

Question 5 -All answers must be obtained from MS Project software. Manually computed answers will not be considered. Save the file as your name eg. NabankemaAnna

Refer to the activity network table below. Enter this information in MS Project software. The project will start on 20th December 2018. Each working day of the week starts at 8.00 am and ends at 3.00pm non-stop. All Saturdays and Sundays are working days. The following days are public holidays - 24th December 2018, 25th December 2018, 26th December 2018, 1st January 2019, 8th March 2019

Activity	Duration (Days)	Predecessors	Resource Assigned
A. User survey	14	None	Gail
B. Coding	10	A	Hodges
C. Debug	5	B	Wilson
D. Design interface	16	A, C	Ryan
E. Develop training	15	D	Taylor
F. Design	15	A	Ryan
G. Lay Network	20	F	Gail

Resource costs per day (UgShs):

Gail - 300,000	Hodges - 500,000	Wilson - 400,000
Ryan - 200,000	Taylor - 100,000	

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| a) What is the duration of the project | b) What activities are on the critical path. |
| c) What is the total hours for Ryan | d) What is the total man- hours for the whole project |
| e) What is the total cost of the project | |

END