



MACHAKOS UNIVERSITY

University Examinations for 2020/2021

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTING AND INFORMATION TECHNOLOGY

THIRD YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE (COMPUTER SCIENCE)

SCO 302: SOFTWARE PROJECT MANAGEMENT

DATE: 12/8/2021

TIME: 11:00 – 1:00 PM

INSTRUCTIONS: Answer Question ONE and any other TWO Questions

QUESTION ONE (Compulsory) (30 MARKS)

- a) State four main attributes of a project (4 marks)
- b) Discuss the triple constraint of a typical computing project (6 marks)
- c) Distinguish between a project plan and project charter (4 marks)
- d) Explain three tools that can be used to ensure project quality assurance (6 marks)
- e) Consider a project to develop an enterprise resource planning system whose main] activities have been identified and coded as follows:-

Activity	Preceding Activity	Activity Duration (days)
A	-	5
B	-	6
C	A	4
D	A	5
E	B	2
F	B	5
G	C, E	4
H	C, E, F	6

- i) Draw a network diagram for the above project. (6 marks)
- ii) Determine the critical path. (2 marks)
- iii) State two software/applications that can be used to implement this diagram. (2 marks)

QUESTION TWO (20 MARKS)

- a) James has been contracted to assist in planning a project on developing a web based system to be executed in a given company.
 - i) Draw a Gantt chart with at least five tasks that he can use. You can have two tasks overlapping while others beginning after one is complete. (8 marks)
 - ii) Explain any other two tools he can use to design the project. (4 marks)
- b) Explain four activities that are part of the process of managing risks in a project. (8 marks)

QUESTION THREE (20 MARKS)

- a) Explain any three computing projects that require professional project management. (6 marks)
- b) Explain three reasons why organizations may outsource project management services. (6 marks)
- c) Discuss the qualities that a project manager needs to ensure success of his team project (8 marks)

QUESTION FOUR (20 MARKS)

- a) Explain the possible composition of a project team for developing an information system for Machakos University. (8 marks)
- b) Discuss four dimensions of standards that can be used to analyze a software product. (8 marks)
- c) A project management team wants to undertake quality management as one of the major activities of the team. Explain three quality management activities they are likely to do. (6 marks)

QUESTION FIVE (20 MARKS)

- a) Explain three tools that can be used to manage the project team. (6 marks)
- b) Explain four reasons why a good percentage of projects fail. (6 marks)
- c) State four standards that can be used to ensure quality of projects. (4 marks)
- d) Discuss scope management in relation to projects. (4 marks)