



King Saud University

College of Computer and Information Sciences

Department of Information Systems

**Course: IS 240 – IS Analysis and Design 1st Term, Academic Year
2015-2016**

Mid Term 1 Exam

**Time allowed: 90 Min
Date of Exam: 26-10-2015**

Q. No.	Maximum Marks	Marks Obtained
1	30	
2	35	
3	35	
TOTAL (Out of)	100	
TOTAL (Out of)	15	

Name:.....

Student No.:.....

Section:.....

Signature:.....

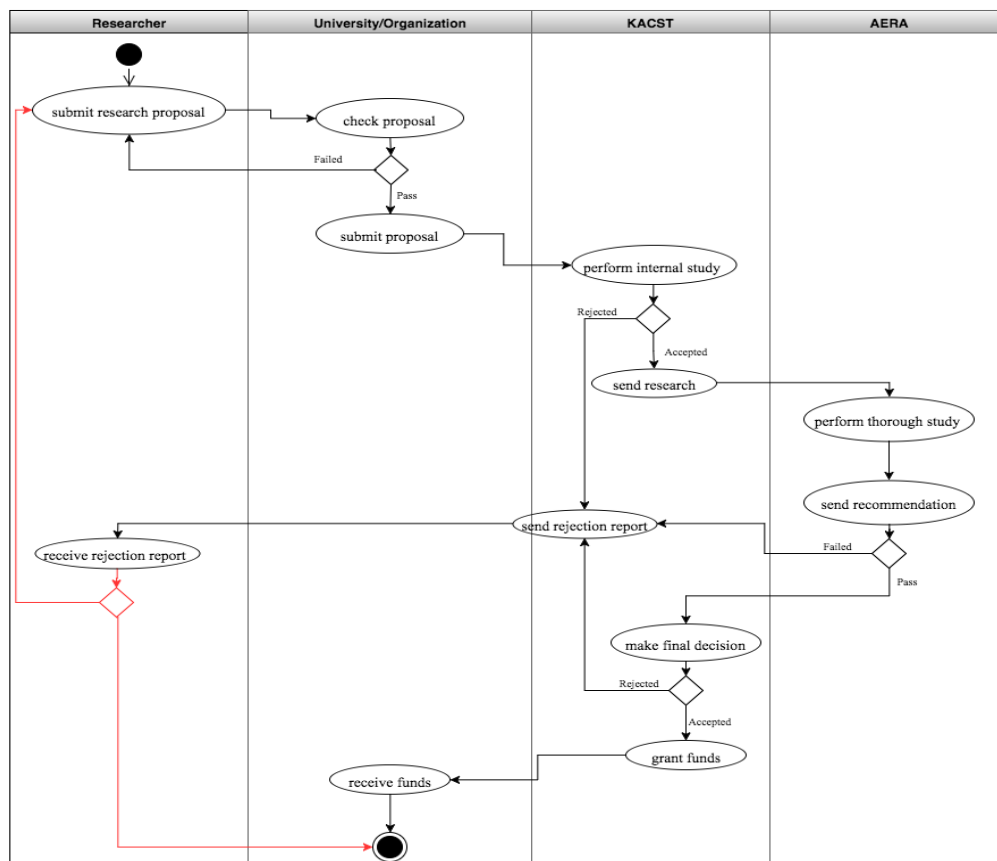
Question 1: True/False.

#	Statement	True/False
1	Agile Development is an approach to system development in which the system is "grown" piece by piece through multiple iterations.	F
2	The System Vision Document is developed to identify the benefits to the company and the functional capabilities that will be included in the system.	T
3	Work Breakdown Structure helps analysts define functional and non-functional requirements.	F
4	Prioritizing Requirements helps to determine the number, composition, and ordering of project iterations in iterative development.	T
5	Reliability requirements refer to requirements that describe how access to the application will be controlled and how data will be protected during storage and transmission.	F
6	Beginning analysts often properly estimate how much there is to learn about the work the users perform.	F
7	The CRUD technique is mainly used to identify use cases.	F
8	An event when something happens inside the system that triggers the need for processing is called a state event.	T
9	User goal technique is a technique to identify problem domain objects in which developers work with users in an open group setting.	F
10	An abstract class is a class that describes a category or set of objects that might includes individual objects or instances	F

Question 2:

King Abdulaziz City for Science and Technology (KACST) grant funds to researchers across the kingdom. To apply for a research grant, the researcher must go through the following: first he/she must submit a research proposal to his/her university/organization, which will conduct a preliminary study. If it passes, it will be submitted to KACST, which will perform an internal study as well as a thorough study from the American Educational Research Association (AERA). The research must pass the internal study first before sending it to AERA. AERA then will send its recommendations to KACST, which will decide whether it will fund the research, or not. In case of accepted researches, KACST will provide the funds to the university/organization of the researcher. If the research failed any of the studies or was rejected, KACST will send a report to the researcher containing the reasons of failing.

Draw an activity diagram for the mentioned scenario.



Question 3:

Design a project planning system where a project can be decomposed into activities. An activity involves any number of work products as input and any number of work products as output, and work products may be used with any number of activities as input or output. Activities are related where one predecessor activity may have any number of successor activities, and one successor may have at most one predecessor activity. An activity can be decomposed into tasks. Tasks are related where one predecessor task may have any number of successor tasks, and one successor may have at most one predecessor Task.

Draw a domain model class diagram to model the project planning system showing classes, their relationships (generalization/specialization, association, whole-part) and multiplicities as appropriate.

