Fast**National University of Computer & Emerging Sciences, Karachi  
Quiz – I (Spring-2023)**

**17th Feb 2023**

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| Student: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Section: \_\_\_\_\_\_\_\_\_ |

**Q1:** Symantec is a standalone company dedicated to consumer cyber safety. They are the pioneers of some of the security solutions in different domains like endpoint security, information security. They also have a proper team structure for managing their workflow in projects. For clear understanding of the projects, they use prototyping approaches and define the sub activities of each process as well. Moreover, for better product development, they use different techniques to appropriately predict system performance. Mention the appropriate level number and name of CMM at which the organization lies? Support your answer with arguments. **[3]**

**Q2.** Al-Shifa is a well-known hospital which has well established departments including Burn Care Units, Cardiac Center, Neurology Department, Child Care Units etc. The hospital is now switching from traditional record keeping system to digital system. They are looking for a centralized system which will be used by patients and medical staff from different departments, hence the system should be able to recognize each role and allow the services accordingly. Each user will be required to create an account and login before accessing any other service. Each user will have a different signup form based on their selection of role. A centralized database will be maintained to avoid redundancy, for each transaction the database will be accessed via different functionality. The department will have access to all the patients registered in hospital’s database. Each patient is assigned a physician and appointment by the department based on the information provided by the patient.  Each physician will have the rights to visualize and update records of the patients assigned to him. The department and physician also have the rights to generate medical reports for the user.  As evident from the requirements of the Al-Shifa hospital, security is non-negotiable for the system, and each transaction requires a step wise access to information.

What do you think which approach is better to develop the above-mentioned system. Plan driven or Agile? Give concrete reasons for your answer **[3]**

**Q3.** Give brief answers:

* Why maintenance cost for a software is greater than the development cost. **[2]**
* Why test first development is a better approach? **[2]**