**MILITARY COLLEGE OF SIGNALS**

**MIDTEM EXAM**

**BESE-15B**

**SOFTWARE ENGINEERING**

**Instructor: Rabia Khan Time: 90 Mins Max Marks: 30**

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* **Attempt all questions. State assumptions where necessary.**
* **Understanding the question is part of exam.**

**Q No.1**

1. What are Umbrella Activities in a common process framework? Explain each activity. **5 points**
2. What are three types (levels) of testing? Which one primarily would use use-cases to drive the test cases and why? **3 points**

**Q No.2**

1. The design is usually documented as a set of graphical models. For each model, explain what is the information contained in it and how does that information help in implementation phase? **4 points**
2. How the waterfall model and evolutionary paradigm are accommodated in the incremental process model? **4 points**
3. Requirements should state what a system should do, without stating how it should do it. Why is this distinction useful? **2 points**

**Q No.3**

1. What are the advantages of using ‘Unified Process’ in general? How does RUP enhance team productivity? **4 points**
2. How is integration testing different from system testing? **2 points**

**Q No.4**

1. You are hired as a software engineer to design support software for optical networks which is to be delivered immediately by an organization. The software is expected to change before the final release. What will be your choice regarding the process model? Justify your answer. **4 points**
2. Software architecture describes a high-level design view of a software system. What are the advantages of explicitly describing the architecture independently from the implementation? **2 points**

Good Luck!