Nepal college of information technology

Unit Test

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| Level: Bachelor | Semester – Fall | Year : 2014 |
| Programme: BE SE | | Full Marks : 70 |
|  | | Pass Marks: 35 |
| Course: Software Engineering Fundamentals | | Time : 2hrs. |

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| *Candidates are required to give their answers in their own words as far as practicable.* |
| *The figures in the margin indicate full marks.* |
| *Attempt all the questions.* |

1. a) What is Software Engineering? Explain about the software characteristics. [7]

b) Why is it necessary to follow software process model for developing the software? Discuss the Spiral process model, stating its advantages and disadvantages [8]

2. a) Calculate the function point value for a project with the following information:

|  |  |  |  |
| --- | --- | --- | --- |
| Information domain value | Optimistic | Likely | Pessimistic |
| Number of Input | 22 | 26 | 30 |
| Number of Output | 16 | 18 | 20 |
| Number of Inquiries | 16 | 21 | 26 |
| Number of Files | 4 | 5 | 6 |
| Number of External Interfaces | 1 | 2 | 3 |

Given that, all complexity adjustment values are average. The organizational average productivity for systems of this type is 8.5 FP/pm and labor rate of $6000 per month. Also, calculate the total Cost and Effort required. [8]

b) What are the various myth regarding the software development? [7]

3. a) Describe the phases of the RAD model for software development? [8]

b) Explain the 4 P’s in effective management. What do you mean by umbrella activity in software process? [7]

4 a) “Adding people is a good way to catch up when a project is behind schedule.” Do you agree? Give your justification. [7]

b) What do you mean by direct and indirect measures in software measurement? Explain about size-oriented metric along with its disadvantages. [8]

5. Write short notes on any two: (5\*2)

a) CMM

b) Prototyping Model

c) Reusable Software Resources