Examination report – June 2013 series

2730-025 Software engineering

Section 1 – Areas of good performance
Syllabus reference: 1.4, 1.5 – The need for software engineering – software process. This syllabus section, on the whole, was answered very well. Syllabus reference: 1.8, 1.9, 1.13 – Software specification – requirements analysis. This syllabus section was answered satisfactorily by the majority of candidates. Syllabus reference: 1.15, 1.16 – Software specification – requirements analysis. Overall solutions were good although state diagrams were sometimes inaccurate and poorly labelled. Syllabus reference: 1.22 – Software design and implementation – design methodology. On the whole, answered fairly well although the JPN diagram showing the calculation of the sum of numbers 1 to 50 was often inaccurate. Syllabus reference: 1.23 – Programming practice – and software tools. This syllabus section, on the whole, was answered very well. Syllabus reference: 1.39, 1.40 – Software validation – testing. The answers to the meaning of static analysis and dynamic analysis with reference to software testing and the disadvantages given of using static analysis compared to dynamic analysis were generally satisfactory. The statements of its purpose, descriptions of its use and drawbacks given with reference to equivalence partitioning were often vague. Syllabus reference: 1.44, 1.45 – Programming languages. Overall solutions were good. Marks were lost in the comparison between scripting and system languages in the application suitability and the execution speed. Syllabus reference: 1.50 – Programming languages. The meanings given for client-side scripting and server-side scripting were satisfactory. However, the majority of candidates failed to provide suitable benefits and drawbacks for client-side scripting.
Section 2 – Areas for development
Syllabus reference: 1.29 – Programming practice and software tools. Several candidates had trouble distinguishing between upper and lower CASE tools. Very few candidates could provide four problems associated with the use of CASE tools in a development project. Syllabus reference: 1.61, 1.68 – Programming languages. Very few candidates could accurately describe the purpose of the Unix system files.

Section 3 – Recommendations
Candidates need to improve their knowledge in the following areas: · The use and application of CASE tools. · Unix file handling principles and the use of dedicated system files.