1. Application Composition Estimation Model can be used to estimate the cost of effort to develop a project. Consider a database application project with the following characteristics:
2. The application has four screen and five views each and four data tables for three servers and three clients.
3. The application may generate three reports of five section each from four data tables for two servers and three clients.
4. There is 20% reuse of application points.
5. The developer’s experience and capability in similar environment is low.

Use the tables provided below to calculate the effort to develop the project by showing the steps of calculating the application point count, new application points and effort to develop. The effort is measured in person per month. (10 marks)

Table 1: For Screens

|  |  |  |  |
| --- | --- | --- | --- |
|  | Source of data tables | | |
| Number of view contained | Total < 4  (<2 client  <3 server) | Total < 8  (2-3 client  3-5 server) | Total 8+  (>3 client  >5 server) |
| <3 | Simple | Simple | Medium |
| 3-7 | Simple | Medium | Difficult |
| >7 | Medium | Difficult | Difficult |

Table 2: For Reports

|  |  |  |  |
| --- | --- | --- | --- |
|  | Source of data tables | | |
| Number of sectioon contained | Total < 4  (<2 client  <3 server) | Total < 8  (2-3 client  3-5 server) | Total 8+  (>3 client  >5 server) |
| 0 or 1 | Simple | Simple | Medium |
| 2 or 3 | Simple | Medium | Difficult |
| 4+ | Medium | Difficult | Difficult |

Table 3: Complexity Weight

|  |  |  |  |
| --- | --- | --- | --- |
|  | Complexity Weight | | |
|  | Simple | Medium | Difficult |
| Screen | 1 | 2 | 3 |
| Report | 2 | 5 | 8 |

Table 4 PROD reference

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Developer’s experience and capability;  ICASE maturity and capability | Very Low | Low | Normal | high | Very high |
| PROD (NAP/person per month) | 4 | 7 | 13 | 25 | 50 |

---------------------------------------------

**4 screens: medium**

**3 reports: difficult**

Application point count: 4x2 + 3x8 = 8 + 24 = 32

New application points (NAP): 32 x 80% = 25.6

Effort to develop (person-month): NAP/PROD = 25.6/7 = 3.657