IFPUG 4.1 PRACTICE CERTIFICATION EXAM
Student Question Sheet

EXAM 2001

PART 1 – DEFINITIONS

MULTIPLE CHOICE

Version 1.0

INSTRUCTIONS

- Circle the single correct answer ***on the attached Student Answer Sheet for Part 1***
- Answer all questions.
- **DO NOT WRITE YOUR ANSWER ON THIS FORM**

1. ***An elementary process is defined as*:**

a. A business requirement requested by the User.
b. A self-contained action
c. The smallest unit of activity that is meaningful to the user(s)
d. A and C

2. There are three types of Function Point counts in the CPM 4.1, which of the following are not a valid count type(s):

a. Development project function point count
b. Application function point count
c. First Installation project function point count
d. None of the above

3. The main difference between External Inputs and External Inquiries is:

a. External Inputs update ILFs
b. External Inquiries do not update ILFs
c. Their primary intent
d. None of the above

4. If two input processes are always sequential and dependent, how many elementary processes do we have?

- ***a.*** Two elementary processes
- ***b.*** The number of elementary processes cannot be determined
- ***c.*** One elementary process
- ***d.*** Depends on whether they update the same ILFs

5. Which of the following rules must apply for the process to be identified as an elementary process:

- ***a.*** The smallest unit of activity that is meaningful to the user(s)
- ***b.*** It must be documented in the Users Functional Requirements Specification
- ***c.*** The process is self contained and leaves the business of the application in a consistent state
- ***d.*** A and C

6. Control Information is <u>defined</u> as:

- ***a.*** Data that is required to maintain user defined functions
- ***b.*** Information which is extracted from the application under study
- ***c.*** Data that influences an elementary process of the application being counted. It specifies what, when or how data is to be processed
- ***d.*** Data that controls an elementary process of the application being counted so that it does what the User thinks it should do

7. A User is defined as:

- ***a.*** Any person that specifies Functional User Requirements and/or any person or thing that communicates or interacts with the software at any time
- ***b.*** Any person that specifies the application boundary of the software under study
- ***c.*** A human resource which is utilised when constructing the application software
- ***d.*** None of the above

8. User identifiable is defined as:

- ***a.*** Functions which may be utilised by the primary user
- ***b.*** Identifiable functions from the perspective of the primary user
- ***c.*** Defined requirements for processes and/or groups of data that are agreed upon, and understood by, both the user(s) and software developers(s)
- ***d.*** Both A and C

9. A File Type Referenced (FTR) is defined as:

- ***a.*** A logical file which is required by the application under study
- ***b.*** An Internal Logical File read or maintained by a transactional function
- ***c.*** An External Logical File read by a transactional function
- ***d.*** Both B and C

10. Which of the following could be described as being processing logic:

- ***a.*** Equivalent values are converted
- ***b.*** Validations are performed
- ***c.*** Data or control information is retrieved
- ***d.*** A, B and C

11. A Data Element Type is defined as:

- ***a.*** A field held on a logical file
- ***b.*** A unique user recognisable, non-repeated field
- ***c.*** An error or warning message which is produced by the application
- ***d.*** None of the above

12. An External Input (EI) is defined as:

- ***a.*** Any elementary process which is user recognisable and which stores entered data
- ***b.*** An elementary process which accepts and validates user entered data
- ***c.*** An elementary process which updates an Internal Logical File
- ***d.*** An elementary process that processes data or control information that comes from outside the application boundary where the primary intent is to maintain ILF(s) and/or alter the behaviour of the system

13. Which statement describes the difference(s) between an External Output(EO) and External Inquiry(EQ):

a. An EO is an elementary process that sends data or control information outside the application boundary, the EQ only sometimes does this.
b. The processing logic of an EO must contain at least one mathematical formula or calculation, or create derived data.
c. An EO may also maintain one or more ILFs and/or alter the behaviour of the system
d. Both B and C

14. An Internal Logical File is defined as:

a. An Internal Logical File (ILF) is user identifiable data referenced within the boundary of the application
b. An Internal Logical File (ILF) is user identifiable data maintained outside the boundary of the application
c. An Internal Logical File (ILF) is a user identifiable group of logically related data or control information maintained within the boundary of the application
d. None of the above

15. The primary intent of an ILF is to:

a. Hold data maintained through one or more elementary processes of the application being counted.
b. Define the user identifiable group of logically related data stored by the application
c. Provide the application a weighting for data storage
d. Both A and B

16. An External Interface File is defined as:

a. An External Interface File (EIF) within this application is a user identifiable group of logically related data or control information maintained within the boundary of this application and referenced by another applications
b. An External Interface File (EIF) is a user identifiable group of logically related data or control information referenced by the application, but maintained within the boundary of another application
c. An External Interface File (EIF) is a user identifiable group of logically related data or control information maintained within and external to the boundary of the application
d. None of the above

17. The primary intent of an EIF is to:

- ***a.*** Hold data referenced through one or more elementary processes within the boundary of the application counted
- ***b.*** Define the user identifiable group of logically related data which needs to be maintained by Elementary Processes in this application
- ***c.*** Provide the application a weighting for data storage referenced
- ***d.*** Both A and C

18. A Record Element Type is defined as:

- ***a.*** A unique set of user recognisable, non-repeated subgroup fields
- ***b.*** A subgroup of fields held on an ILF and updated by an EI
- ***c.*** A user recognisable subgroup of data elements within an ILF or EIF
- ***d.*** None of the above

19. How many types of subgroups of a Record Element Type are there?

- ***a.*** Two
- ***b.*** One
- ***c.*** Infinite
- ***d.*** None

20. The application boundary determines the following:

- ***a.*** The number of elementary processes counted for the application
- ***b.*** Is dependent on implementation considerations
- ***c.*** Which logical files are counted as EIFs
- ***d.*** None of the above

21. For an Elementary Process the data elements entering the application boundary that influences the elementary process and specify 'what and/or how' data is to be retrieved or generated is referred to as:

- ***a.*** The input side of an External Input
- ***b.*** The input side of an External Output
- ***c.*** The input side of an External Inquiry
- ***d.*** Control Information

22. What is the primary intent of an External Input:

a. Maintain an ILF or alter the behaviour of the system.
b. Extract and present information to a user
c. Validate the data being entered by the application's users
d. All of the above

23. The objectives of Function Point Analysis are to:

a. Measure functionality that the user requests and receives
b. Measure software development and maintenance independently of technology used for implementation
c. Measure project effort
d. Both A and B

24. Organisations may apply Function Point Analysis as:

a. A normalisation factor for software comparison
b. A tool to measure the units of a software product to support quality and productivity analysis
c. A vehicle to estimate cost and resources required for software development and maintenance
d. A, B and C

25. According to IFPUG, what is the TDI?

a. The sum of the 14 Degrees of Influence
b. The **T**he **D**egree of **I**ntervention in operations
c. +/-35%
d. The Value Adjustment Factor

26. The development project Function Point count measures:

a. The functions provided which are referred to as the application Function Point count
b. The functions provided to the users with the first installation of the software delivered when the project is complete
c. The initial size of an application
d. The amount of Effort required to develop the project

27. Which count is also referred to as the baseline Function Point count?

a. Development Project function point count
b. Application function point count
c. Initial Project count when the base functionality is being established
d. The total size of an organisations portfolio

28. The degree with which the application attends to aspects of the operation of the software such as start-up, back-up and recovery processes is accounted for in which of the following GSCs?

a. Installation ease
b. Performance
c. Operational Ease
d. End user efficiency

29. In order for an external interface file to score high complexity, which of the following situation(s) must be true:

a. EIF contains more than 50 DETs and 2 RETs.
b. EIF contains 15 RETs
c. EIF contains 50 DETs and 5 RETs
d. EIF contains over 100 DETs

30. Complex Processing is recognised by which of the following GSCs?

a. Heavily used configuration
b. User Efficiency
c. Installation ease
d. None of the GSCs listed above

31. When determining the complexity of External Inquiries, are all literals counted as DETs?

a. Yes
b. No
c. Sometimes, it depends upon the user view
d. Only if they are not paging variables or system generated stamps

32. When a user requirement exists to store details of any changes made to the Contracts File for audit purposes, how is it counted? :

a. As a separate logical file , the Audit File
b. As a RET with a minimum of 2 DETs on the Contracts ILF
c. As a RET with 'n' DETs where 'n' is the number of DETs which the user changed, on the Contracts ILF
d. It is ignored in FPA because it is considered a quality feature of traceability

33. According to IFPUG's 4.1 manual, which of the following formula is used to calculate the Development Project Function Point count (DFP)?

a. (UFP + CFP) * VAF
b. UFP + AFP * VAF
c. UFP * VAF
d. (UFP – CFP) * VAF

34. For both EQs and EOs - which of the following processing logic do <u>both</u> types have to perform in order to be classified as an EQ or EO:

a. Behaviour of the system is altered
b. Derived data is created
c. At least one EIF or ILF is referenced
d. Prepare and present information outside the boundary

35. Select the correct formula for calculating the enhancement project Function Point count:

a. [(ADD + CHGA + CFP) * VAFA] + (DEL * VAFB)
b. [(ADD + CHGB + CFP) * VAFA] + (DEL * VAFB)
c. [(ADD + CHGA + CFP) * VAFB] + (DEL * VAFA)
d. [(ADD - DEL + CFP) * VAFA] + (CHGA * VAFB)

36. Which of the following processing logic can be performed by all three types of Transactional functions:

- ***a.*** Resorting or re-arranging a set of data
- ***b.*** Conditions are analysed to determine which are applicable
- ***c.*** Equivalent values are converted
- ***d.*** All of the above

37. In the formula to calculate the development project function point count, what do the formula's arguments represent?

- ***a.*** DFP is the derived project function point count, UFP is the unadjusted function point count, CFP is the function points added by the conversion unadjusted function point count, VAF is the value adjustment factor
- ***b.*** DFP is the development project function point count, UFP is the unadjusted function point count, CFP is the function points added by the changed unadjusted function point count, VAF is the value adjustment factor
- ***c.*** DFP is the development project function point count, UFP is the unadjusted function point count, CFP is the function points added by the conversion unadjusted function point count, VAF is the value adjustment factor
- ***d.*** DFP is the deleted project function point count, UFP is the unadjusted function point count, CFP is the function points added by the changed unadjusted function point count, VAF is the value adjustment factor

38. In order to be rated as ' average complexity' an External Output must have the following DETs and FTRs:

- ***a.*** 4 DETs and 4 FTRs.
- ***b.*** 19 DETs and 4 FTRs.
- ***c.*** 20 DETs and 2 FTRs.
- ***d.*** A and C

39. The degree of consideration of human factors and the ease of use is accounted for in which of the following GSCs?

a. Installation ease
b. Distributed Data Processing
c. Performance
d. End user efficiency

40. If an application provided Multilingual support how many items does it contribute to the GSC rating? :

a. One in the GSC Operational Ease
b. Two in the GSC End User Efficiency
c. Two in the GSC Complex Processing
d. Six in the GSC End User Efficiency

41. When rating the complexity of an External Input, the following rules must apply when counting FTRs

a. Count an FTR for each ILF maintained
b. Count an FTR for each ILF or EIF read during the processing of the EI
c. Count only one FTR for each ILF that is both maintained and read
d. All of the above

42. When determining the complexity of External Inputs, how would you count the DETs derived and stored on an ILF during the elementary process:

a. Count the derived and stored fields only if they have crossed the boundary
b. Count all derived and stored fields as DETs
c. Count all DETs updated on the ILF
d. None of the above

43. When determining the complexity of logical files, are all fields stored on the file counted as DETs:

a. Yes
b. No, count only the unique user recognisable, non-repeated fields
c. No, count only fields identified as DETs and used by the application
d. None of the above

44. Where no subgroups of data exist, how many RETs are counted for the logical file:

a. One
b. None
c. Depends upon the classification of the subgroup type
d. Not an option since Logical files by definition must contain at least one or more subgroup of data

45. An Enhancement project is required to add an extra DET " Delivery Address" to the Customer file. Which of the following statement(s) are correct?

a. The updated Customer File (as it is after the change) is counted as an ILF when counting the changed functionality for the Enhancement project
b. The previous version of the Customer File (the one before the project) which is used to load the data on the updated file is counted as an EIF when counting conversion functionality
c. The previous version of the Customer File (the one before the project) is not considered when counting conversion functionality
d. None of the above

46. Which of the following statement(s) are correct:

a. When counting an EI you need to count all the DETs that are updated on an ILF by the EI
b. An EQ must have at least one input DET on the input side of the Elementary Process
c. All the applications using the Customer file as an EIF will count the same number of DETs
d. None of the above

47. Which of the following statement(s) are <u>always</u> true:

a. If a total is calculated and displayed, then the Elementary Process is counted as an EO
b. The number of DETs counted for a delete EI performed in batch mode is the same as the number of DETs counted for the online version of the EI
c. An Elementary Process that displays the DETs of a record, as it is stored on an Internal Logical file, is counted as an EQ
d. An EI must have a minimum of one DET entering the application boundary

48. Which of the following statement(s) are <u>always</u> true:

a. The count for the Development Project of an application is higher than the Application Count because of the function points contributed by conversion functionality
b. After an Enhancement Project, the Application's new adjusted size is greater than the unadjusted size before the enhancement project
c. An Elementary Process that maintains a record on an Internal Logical file is an EI
d. None of the above

49. Which of the following statement(s) are <u>always</u> true:

a. A process that is automatically triggered by the system clock at the end of the month to reset the accumulated interest on the savings file is counted as an EI
b. An EI will always reference at least one ILF
c. An ILF will always have at least one or more RETs
d. None of the above

50. Which of the following statement(s) are correct:

a. If a change request includes a change to an EQ that now requires it to convert data to another equivalent value, it will change its type from an EQ to now be counted as an EO
b. An EO will always create derived data
c. A change request that includes a new EI to update the Customer File (Customer File previously counted as an EIF in the current application) will now count the Customer File, as an ILF in the Application count after the Enhancement Project is complete.
d. A and B