

CSC – Systems Analysis

T033

Monday, 14/11/2016

08:30 – 11:30

WORKFORCE DEVELOPMENT AUTHORITY



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**ADVANCED LEVEL NATIONAL EXAMINATIONS, 2016,
TECHNICAL AND PROFESSIONAL STUDIES**

EXAM TITLE: Systems Analysis

OPTION: Computer Science (CSC)

DURATION: 3hours

INSTRUCTIONS:

The paper is composed of **three (3) main Sections** as follows:

Section I: Fourteen (14) compulsory questions. 55 marks

Section II: Attempt any three (3) out of five questions. 30 marks

Section III: Attempt any one (1) out of three questions. 15 marks

Note:

Every candidate is required to carefully comply with the above instructions. Penalty measures will be applied on their strict consideration.

Section I. Fourteen (14) Compulsory questions**55marks**

- 01.** In which way is physical DFD useful? **3marks**
- 02.** Why is it recommended to document and to train on the software being used just while implementing it? **3marks**
- 03.** Differentiate open – ended questions from closed – ended questions and give example for each. **3marks**
- 04.** Distinguish True from False for the following statements. Use the table below. **5marks**
- ▶ A collection of components that work together to realize some objectives forms a system. ✓
 - ▶ System life cycle is not an organizational process of developing and maintaining a system.
 - ▶ In the system analysis and design terminology the system development life cycle means software development life cycle.
 - ▶ Coding is a step of SDLC that follows implementation phase.
 - ▶ System analysis and system design are the same phase of system development life cycle.

True statements	False Statements

- 05.** What is an Information System? **3marks**
- 06.** Differentiate functional from no functional requirements of a system. **3marks**
- 07.** Why do businesses need Systems Analysts? **3marks**
- 08.** Why are system tests necessary just before implementing a developed system? **3marks**
- 09.** What are the initial two steps followed by a system analyst when he is requested to design an information system? **3marks**
- 10.** List at least three main differences between Data Flow Diagram (DFD) and flowchart. **6marks**
- 11.** Explain the term “End- User”. **4marks**
- 12.** Define: software error, software fault and software failure. **6marks**
- 13.** Describe a system analyst. **5marks**
- 14.** Mention what are the types of requirements that a system analyst should gather and analyze? **5marks**

Section II. Choose and answer any three (3) questions.

30marks

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15. During design phase, there are three primary ways to approach the creation of new system. Explain them. **10marks**
16. There are two main data storage formats, file and database. Explain following terms: **10marks**
- a. Master files
 - b. Transaction files
 - c. Look up file
 - d. Audit file
17. Testing occurs during the implementation phase. Explain: **10marks**
- (a) Unit testing
 - (b) Integration testing
 - (c) Black box testing
 - (d) System testing
18. a. Explain the project work plan. **10marks**
- b. Explain the importance of showing tasks dependencies in software project management.
19. Interview is one of the techniques used for data/information collection. Differentiate the three types of interview questions. **10marks**

Section III. Choose and answer any one (1) question.

15marks

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20. Explain the following three fundamental types of user documentations:
- (1) Reference documents
 - (2) Procedures manuals
 - (3) Tutorials
21. What is primarily done during the design phase?
- (a) Explain three strategies among which a company may choose during the design phase
 - (b) What is the importance of support plan established during implementation phase?
22. (A) Explain the break-even-point, a technique used to measure the software project's worth.
- (B) Explain the Organizational feasibility.