

# বাংলাদেশ ইউনিভার্সিটি অব প্রফেশনালস্

সেকশন/গ্রুপ..... Section-B .....



ইনভিজিলেটরের স্বাক্ষর

মোট পৃষ্ঠা সংখ্যা..... 12 .....টি

BSc. in CSE-17 Final Exam (Spring) Feb-21

পরীক্ষা (Examination), 20 21

বিষয় (Subj): System Analysis, Design & Development পত্র/কোর্স নং (Paper/Course No): CSE-401

পত্র/কোর্সের নাম (Paper/Course Name): CSE-17 কেন্দ্র (Center): MIST

রেজিঃ নম্বর (Regn No): 131401170018 শিক্ষাবর্ষ (Session): 2019-2020

রোল নম্বর (Roll No): 201714018 তারিখ (Date): 10-02-2021

## INSTRUCTIONS FOR EXAMINEE

- Examinees are forbidden to write their names either on outer cover page or anywhere of the answer scripts. In case of violation, the answer script will not be evaluated.
- Examinees must mention their roll and registration number along with session on the outer cover page of the answer scripts clearly. Otherwise, answer scripts may not be evaluated.
- Students will write his examination roll number on the top left corner and section-A/B on the top right corner of each page. All pages must be numbered chronologically at the bottom center in x of y format. (for example: 1 of 21)
- In no case, an examinee will be allowed to start the examination half an hour after the commencement of examination.
- The Camera of the examinee MUST always be ON during the examination and answer script submission. If Camera is OFF then that online examination will be treated as CANCELLED.
- The focus of the camera should be such that the invigilator(s) can see the script and examinee with his/her surroundings.
- Students are to share their entire screen of desktop/laptop to the invigilator throughout the online examination.
- Browsing any files other than the given question paper (PDF) and/or online sites other than the respective allowed examination platform (e.g Zoom, Google classroom etc.) is strictly prohibited.
- Online invigilators reserve the right to take remote access of the examinee's desktop/laptop and investigate as needed at any point during the examination or even after the examination
- Students without laptop/desktop cannot appear exam online by using mobile phone. Students not possessing laptop/desktop, will have to appear examination Physically at MIST.

পরীক্ষক কর্তৃক প্রণীত

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পরীক্ষকের স্বাক্ষর

নিরীক্ষকের স্বাক্ষর

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## INSTRUCTIONS FOR EXAMINEE

11. Examinees must abide by the instructions of chief invigilator if there are no definite instructions on any subject/matter.
12. No examinee will be allowed to leave the examination session until an hour has elapsed from the commencement of examination.
13. Legal action will be taken against the examinees those are trying to adopt/adopting unfair means/exhibiting unbecoming conduct in the examination hall and found guilty for any breach of discipline as per rule.
14. Invigilators will have complete authority of deducting marks from any student attempting unfair means.
15. All rough works should be done in the same paper used as answer scripts. Answer scripts should be submitted intact. Papers used for rough work should be pen through by the examinees and submitted along with the answer script.
16. The answer scripts submitted beyond specified time will be treated as CANCELLED.
17. The examinee will send his/her scanned examination script in PDF format to the following e-mail addresses:
  - (a) e-mail address of subject invigilator/examiner.
  - (b) Central Database Scheme (coursecode@mist.ac.bd)  
Example: EECE433@mist.ac.bd
18. The examinee has to preserve the original answer script of every examination and be ready to submit whenever asked for.
19. Answer script should be the A4 size papers with a cover page provided by Department. Examinee has to fill up his/her necessary details on the cover page. Section A and section B must be clearly marked on the cover page like. Section A or Section B
20. Examination duration for each subject will be two hours (section-A for one hour + section B for One hour). In between students will get 15 minutes time to submit the answer script of section A and 5 minutes time to issue the question for section B . After completion of 01 hour examination time for section B, students will get 15 minutes to submit the answer script of section B.
21. After completion of written examination (online/physical), viva will be conducted by the respective faculty of that subject.

Section-BAns. to the ques. no.-05(a)Pool approach:

The pool approach clusters programmers to a pool that reports to a supervisor. Each programmer is assigned to do a program to prepare the program through all stages.

Team approach:

The team approach assigns each programmer to a team that has the responsibility for a specific project. Programmers report to lead programmer and the lead programmer report to project leader.

A comparative discussion between top level and lower level information is given below :



<u>Top level information</u>	<u>Lower-level information</u>
① Also called strategic Information.	① Also called operational Information.
② It comprise of relevant, accurate, complete and timely information of the organization.	② It comprise of detailed internal information of a particular department.
③ Direct interest to Upper management.	③ Direct interest to lower management.
④ Relates to long range planning.	④ Relates to short range planning.
⑤ Aided by Decision Support System (DSS)	⑤ Aided by Data Processing System (DPS)

These are the jobs and characteristics of a top level and lower level information of an organization.

Ans. to the ques. no.-05 (b)

The purpose of 'feedback' as an element of an information system is to measure the output against a standard and feed to the input for improvement. After getting the output from processing the output information is fed back to the input and then the output is compared against performance standards and these results in the input change or processing change or output change for getting the improved output. Positive feedback helps reinforce the performance of the system. Negative feedback can also help the system as negative feedback often consists of suggestions of improvement. And these are the purpose of 'feedback' as an element of an information system.

A system analyst plays a multifaceted role in the lifecycle of software design and development. As a justification of this statement a role change agent is described which is played by the system analyst apart from other roles.

### As a Change Agent:

System is bound to have many changes over its course of time of development. It is important to secure user acceptance of these changes through user participation while introducing changes and a system analyst can play the role of a change agent that ensures that user acceptance. A system analyst can work as a bridge between user and changes of the system. A system analyst can introduce changes to users by adopting many styles: persuader style or imposing style. The goal of this role is to achieve user acceptance of the system with a minimum resistance. A system analyst plays this role and many other roles.



Ans. to the ques.no. - 05(c)

Based on the above context, the system lacks the interpersonal skill of communication and Technical skill of Problem solving.

The system analyst lacks the interpersonal skill of communication. Having the ability to properly speak the language of the user (feelings, talking, reaching) as well as gathering experiences and reactions are a necessary communication interpersonal skill that every system analyst should possess. But the above mentioned system analyst did not care for checking the requirements provided by the client and also did not bother to talk or reach out to the client to further grasp the clients requirements. And again when the client wanted his requirements to be incorporated the analyst imposed his own methods and forced to the client to agree to his

requirements. this made the project analyst-oriented rather than user-oriented. So, the system analyst lacks the communication interpersonal skill.

Also, the system analyst developed the initial version, using an inefficient framework. this shows the lack of Problem Solving and Knowledge Technical Skills of the system analyst. Problem Solving requires that the analyst solves and develops an efficient initial version for the client. and lack of knowledge leads to that inefficient framework. So, the analyst lacks the Problem Solving and Knowledge technical skills.



Ans. to the ques. no.-06(a).

Time horizon dimension:

The time horizon dimension specifies whether it is short-range (less than two years) medium-range (two to five years) or long-range (more than five years) planning of MIS.

Focus dimension:

The focus dimension tells whether the primary concern is strategic, managerial or operation in planning of MIS.

An example to describe that Logical design is concerned with "WHAT" the system must accomplish and, physical design is concerned with "How" the system will meet those requirements are given below:

### Example of Logical Design:

A library management system where books are to be entered and Books can be check out or returned and Books appear based on dewey-decimal system.

For this example, Logical design only concerns with the what data types are needed for a book to be entered to the library management system.

(What data are needed not the actual data types of implementation). Logical design also defines the book to student users relationship in the DB (not implementation) how the check out or return should work and the definition of books ~~or~~ order the dewey-decimal system. The logical system only describes the what the system must accomplish.

### Example of Physical Design:

For the same above example, physical

design concerns are -

- what data types are needed for a book in the implementation.
- how database relationship will be implemented for check out of books and returns.
- how the dewey-decimal system should be implemented.

So, the physical system concerns with how the system meets the requirements.



Ans. to the ques. no. - 06(b)

Bottom - UP Strategy:

In Bottom-up strategy the design starts from the lower level or most basic of level modules and move towards to the higher level modules.

The below diagram describes a bottom up strategy:

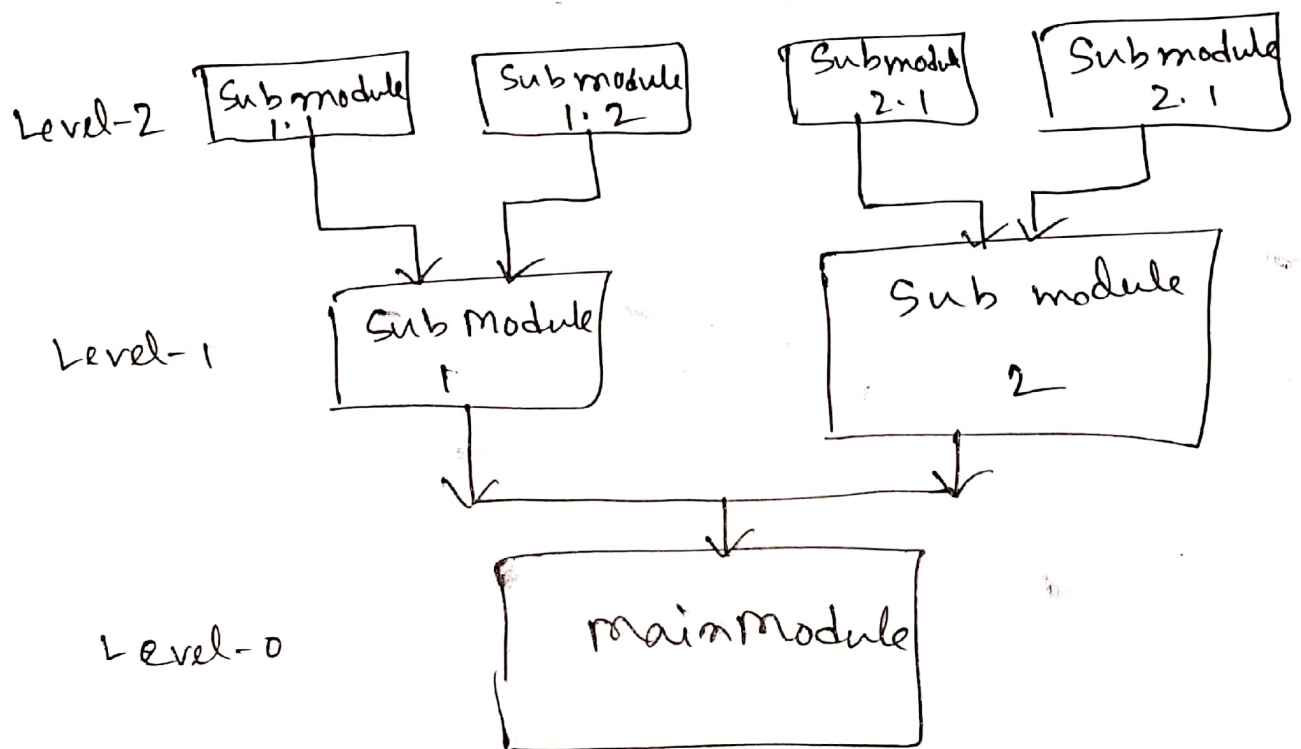


Fig: Bottom-Up Strategy.

importance of background analysis as an activity of initial investigation in SDLC are given below:

- It is important to know the current system.
- It is important to find the current systems knowledge and facts.
- It is important to know the current systems weakness and strong features.

That is why background analysis is important in initial investigation.

Ans. to the ques. no. - 06(c)

To gather the client information I will use the interview method and unstructured approach to gather the clients requirements.

Interviewing the elderly nursing will be enough and the authority and nurses of the organizing can be enough to gather information. also on-site observation of the home care can be helpful in gathering the requirements of the client.