

EDU654

Final term Most Important And repeated topics for short and Long Questions

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Some Important BOOKS name with Author These are important for MCQS:

And For objective read Current quizez file Quiz 2 and Quiz3 . Objective will cover easily:

Books Name with Author

- ‘Creating Innovators’ by Tony Wegner
- “Pedagogy of the Oppressed” By Paulo Freire,
- “Now You See It” by Cathy N. Davidson,
- “Thinking Fast and Slow” by Daniel Kahneman,
- Individuals with Disabilities Education Act (IDEA)
- “Guide to e-learning” by Michael Allen, and “E-learning in the 21st century-
 - A framework for research and practice” by D. Randy Garrison through light on the importance of e-learning
- “E-learning in the 21st century” by D. Randy Garrison,
- In the book “The Innovation Secrets of Steve Jobs” it is written that according to a research done by Harvard research, one skill that separates innovators from non-creative professionals is ‘associating’.
- Research for the Innova

Questions:

1. Hypothesis testing?

Hypothesis testing:

Hypothesis tests are procedures for making rational decisions about the reality of effects. A problem can have multivariable solutions. But there is a dominant answer to every question.

2. 4C Model?

solution. Teachers must also keep in mind that different students have different levels of learning. Such type of teaching and learning process follows **4C Model**. In this model following should be taken into account:

- **Context:** Present a real life story, problem or scenario in a context
- **Challenge:** Incrementally, make the problem a challenge.
- **Choices:** Let the students explore the choices that they have.
- **Consequences:** Allow students to think critically about the consequences of adopting each choice.

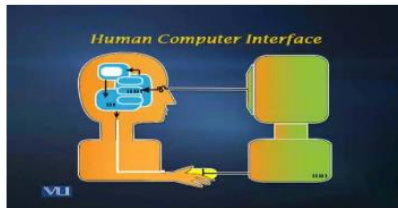
In short, a teacher must take into account the following:

- Critical thinking
- Context
- Challenge
- Choices
- Individual Pace of Learning
- Instant Feedback: Rapid and frequent feedback helps students achieve their learning goals.

3. Human Computer Interface?

Definition of **Human Computer Interface (HCI):**

HCI (human-computer interaction) is the study of how people interact with computers and to what extent computers are or are not developed for successful interaction with human beings. A significant number of major corporations and academic institutions now study HCI. Historically and with some exceptions, computer system developers did not pay attention to computer ease-of-use. Many computer users today would argue that computer makers are still not paying enough attention



Human Computer Interface:

Human Computer Interface is now being used as a **Learning Interface**. Human Computer Interface was first used in web page design by different marketing companies for buying or selling. But when we use HCI in learning, its purpose is to challenge them to make choices based on what they have learnt. When choices are made, then how the computer responds to the choices is basically the function of HCI.

4. Advantages and disadvantages of Human Computer Interface?

Advantages of HCI:

- Very flexible with the use of “switches” (options)
- Good for “expert” users - can quickly access commands
- Uses the fewest system resources

Disadvantages of HCI:

- Requires the user to learn “complex” commands or language
- “Hidden” features i.e. if you don’t know the commands you won’t know the features are there
- Not very good for novice users

HCI merges the following three areas:

- Psychology
- Computer Science
- Virtual Design

Basic HCI Heuristics:

- Rate of responsiveness
- Error recognition and communication
- Interface feedback

5. Important of Technology In learning or Classroom?

Technology plays a crucial role in modern education, transforming the traditional classroom into a dynamic, interactive learning environment. It facilitates access to a wealth of information and resources, enabling students to research and learn independently. Digital tools like interactive whiteboards, educational apps, and online collaboration platforms enhance engagement and make learning more interactive. Technology also supports personalized learning, allowing students to learn at their own pace and according to their individual needs. Additionally, it prepares students for the digital workforce by equipping them with essential tech skills. Overall, technology fosters a more inclusive, efficient, and effective educational experience, bridging gaps and opening up new opportunities for both teaching and learning.

6. Need of innovation in society and education?

Need for innovation in society and education:

Innovation is defined as “the process of making changes to something established by introducing something new.” It applies to “...radical or incremental changes to products, processes or services.” Over the years there have been many changes in the way education is designed and delivered in different parts of the world.

Today, technology is a significant driver behind change, and can play an important role to bring innovations in educational design and delivery. There are immense possibilities for greater and wider-spread change with the use of present-day technological advancements, as well as with the implementation of innovative educational programs. The challenge is to ensure that innovation plays a constructive role in improving educational opportunities for billions of people who remain underserved in a rapidly developing world.

It is very difficult task to create innovators. The most popular University internationally for innovative students is Stanford.

7. VU Model Advantages and Disadvantages?

Advantages of the above model: Advantages of VU model

- Many students can benefit from teaching regardless of their physical locations.
- Additional costs are required for recording of lectures such as camera men, makeup etc. But the benefit of it is that not only a classroom of fourty students but 40,000 students can listen to your lecture at a time.
- Examination is carried out from a question bank prepared by experts and can easily measure students understanding during the semester.

Disadvantages OF VU model

- In conventional classroom, pace of the lecture can be changed according to students interest but the recorded lectures cannot be changed
- If a teacher is allotted to teach a course, he will keep the same notes for not more than three years, and after that some substantial changes are made in it. But in recorded lectures it is difficult to make changes because recording is a long term procedure.

In short, advantages and disadvantages of VU model are:

VU model Advantages 26.8.23	VU Model Disadvantages
- Teaching and testing resources are made available to masses	- No instant feedback
- Scalability	- Difficult to update courses after a certain period of time
- Centralized examination instruments	- No interactivity during the lecture
	- No collaboration
	- Lacks social presence

8. Khan Academy advantages and Disadvantages?

Advantages: 26.8.23

- Effective communicator
- Khan Academy assumes that there must be a computer or laptop for every student, whereas VU has established centers for students all over the world.
- Instant feedback. VU does not provide instant feedback
- It is easy to update the lectures of Khan Academy while VU requires a lot of production cost.

Disadvantages:

- It eliminates the social interaction that must be present in classroom.

9. What are game based leaning and Benefits of Game based learning?

What is Game-Based Learning? It is known as a Game-Based Learning (GBL) the learning method of using games while teaching a subject. Games that are used for this purpose have been designed with the idea of achieving learning outcomes. 15.8.23

Some benefits of using Game-Based Learning

- **Gets student attention.** Students are easily engaged in game activities due to their willingness to play.
- **Students get a positive experience about learning.** The use of games encourages students to keep learning and erases the idea that learning is boring.
- **Rememorize concepts or facts.** Activities such as solving a crossword or alphabet soup are more engaging than a regular test. Prepare some contests such as “Who wants to be a

millionaire” or “The wheel of fortune”. Encourage students to work in teams to achieve the goal where their **knowledge is the clue to succeed.**

- **Reinforce and consolidate knowledge in a friendly environment.** The most effective way to turn content into something **meaningful** is to find out where and when to use it. With games students can reinforce and consolidate their knowledge through practicing and getting reward for their achievements.
- **Understand the consequences of our choices.** Using games enables users to understand the consequences of their choices. In other words, the students **learn through experiences**, through trial and error. Games offer a safe environment to test and **learn through mistakes** so that the information becomes meaningful as students understand its use.

10. Narrative and Types of Narrative?

Narrative:

When relationship between the concepts moves in a same direction it is known as a narrative. For example, a narrative in mathematics can be given as start with counting, then addition, combining counting and addition will result in multiplication, combining subtraction and counting results in division. Connections are at the heart of narrative.

Narratives help in:

- Better memorization/memory
- Rich understanding
- Triggering complex and larger in number mental operations when the student stumbles upon the same concept later.

Types of narratives: 16.8.23

- Logical narrative
- Temporal narrative
- Spatial Narrative

11. Importance of Story telling as a pedagogical tool?

Storytelling is a powerful pedagogical tool that enhances learning by engaging students emotionally and intellectually. It transforms abstract concepts into relatable, memorable narratives, making complex subjects easier to understand and retain. Stories captivate attention, spark curiosity, and foster a deeper connection to the material, which enhances motivation and engagement.

Incorporating storytelling into education encourages active listening and critical thinking. It promotes empathy and cultural awareness by exposing students to diverse perspectives and experiences. Through stories, educators can illustrate moral lessons, ethical dilemmas, and historical events in a way that is compelling and thought-provoking.

Storytelling also supports the development of language and communication skills. Students learn to express ideas clearly and creatively, improving their verbal and written abilities. Moreover, it encourages participation and collaboration, as students often discuss and share their interpretations of the stories they hear.

In addition, storytelling can be adapted to various subjects and educational levels, making it a versatile tool. It can be used to explain scientific concepts, teach historical events, or explore literary themes. By integrating storytelling into the curriculum, educators create a dynamic and enriching learning environment that fosters imagination, critical thinking, and a lifelong love for learning.

12. Importance of Prior Knowledge?

Importance of prior knowledge: 26.8.23

- Curriculum should be connected to community.
- Former knowledge of students is developed very strongly but the application of knowledge is not up to the mark because connection is not made with real life.
- In Italy schools, it is a tradition to study the community first and then incorporate it into the curriculum so that gaining knowledge and application will go side by side.
- Students should be able to put in use the knowledge that they have gained.
- Interactivity presupposes that the learner has some degree of prior knowledge.

13. Major stages in schooling that Need improvement?

What are the major stages in schooling that needs improvement? 26.8.23

The first thing highlighted in this discussion was classroom environment in which a teacher is present; there is teaching presence, cognitive presence and social presence, and the book which the students read after class hours. Classroom atmosphere is almost damaged in our well-known schools and the textbooks are not up to the mark as well.

Quiz#4

- The first stage discussed was that the books must be interactive.
- Students should be excited need to be enabled by teachers to discover.
- Information access point must be other sources as well as schools.
- Interactivity must be present in teaching. Quiz#3
- Transformation of knowledge can be possible in areas where school buildings are far away through online or mobile schooling.
- Smart devices can be applied to learning.

14. Teaching Students with physical disabilities?

Teaching students with physical disabilities requires a thoughtful, inclusive approach to ensure equal access to education. Adapting the learning environment is crucial. This includes providing accessible classrooms, ensuring that furniture and materials are within reach, and using assistive technologies like screen readers, voice recognition software, and adaptive keyboards to support learning.

Educators should employ differentiated instruction tailored to individual needs. This might involve alternative methods for completing assignments, such as oral presentations instead of written reports or using digital tools to facilitate participation. Collaboration with special education professionals, therapists, and families is essential to develop effective strategies and accommodations.

Fostering a supportive and inclusive classroom culture is vital. Educators should promote awareness and understanding among all students, encouraging empathy and cooperation. Group activities and peer support can enhance social integration and ensure that students with disabilities are actively involved in all classroom activities.

Regular feedback and open communication with students are key to understanding their unique challenges and adjusting teaching methods accordingly. By maintaining high expectations and providing necessary support, educators can help students with physical disabilities achieve their full academic potential, ensuring an equitable and enriching educational experience for all.

15. explain collaborative learning?

Collaborative learning is an educational approach where students work together in small groups to achieve a common goal, enhancing their understanding and skills. This method promotes active engagement, as students share ideas, challenge each other's thinking, and build on each other's knowledge. It fosters critical thinking and problem-solving abilities by encouraging diverse perspectives and collective reasoning.

Through collaborative learning, students develop essential social skills such as communication, teamwork, and conflict resolution. It also creates a supportive learning environment where students feel more confident and motivated. Teachers act as facilitators, guiding discussions and providing resources, while students take an active role in their learning process.

This approach can be applied to various activities, such as group projects, peer reviews, and collaborative problem-solving tasks. Overall, collaborative learning not only enhances academic achievement but also prepares students for real-world scenarios where teamwork and cooperation are crucial.

16. Pedagogy of faiz Ahmed faiz?(Majlis)?

Pitrus Bukhari was a very famous professor of Government College University, Lahore. He created a social and cognitive presence in the University.

When people around us think critically and in-depth about the ups and downs of life the product of such thinking is highlighted in the poetries of our poets. One of the most famous poets is Faiz Ahmed Faiz who wrote about the people who are unable to attend formal schooling but if provided with the opportunities and resources, they can do wonders. Every person in Pakistan today has cell phones and most of them have Wi-Fi in it. If such people are guided properly to use these devices for their education their skills can be developed. 15.8.23

15.8.23
E-learning facilities and community of inquiry must be developed for these learners that includes social, cognitive and teacher presence.

The three contexts of learning discussed earlier are:

- Firstly, the street smart children who cannot attend formal schooling but are intelligent enough to use the facilities for their future benefits and education.
- Second is the girl Khadija Niazi, who was studying an online course but suddenly due to some reasons YouTube was blocked. People around the world started to help her out in her difficulty by providing her lectures and notes through other sources instead of YouTube. It was a good example of cognitive presence among the students of the same course.
- Third is the websites where well known Universities provide online certificate courses.

17. phase in E-learning Experience?

Phase in an e-learning experience:

1. Triggering event/ Dissonance
2. Problem exploration and information gathering
3. Integrating and making sense of this information
4. Resolving the issue by applying the ideas either directly or indirectly

18. Importance of social and Cognitive presence in classroom?

Importance of Social Presence in an Online Classroom:

The Instructor's Role

15.8.23

The instructor's role is critical to learning, whether it is face-to-face classroom or online. Studies on distance learning advocate that instructor-to-student, and student-to-student (social presence) interaction is a critical component of learning, as it improves the effectiveness of learning as well as learner satisfaction.

Instructor's Issues

The role of the teacher automatically shifts when the physical is replaced by the virtual classroom. The new role of the instructor is "redefined as a facilitator, organizer, and manager". Online teachers need to realize their role in shaping the social aspects of the online classroom. The teacher plays a critical part in establishing social presence for the entire learning community.

Feedback & Time

In order to create a social link between students and the teacher, the teacher must take into account the isolation felt by students when online communication lags. If time frame expectations are not

met, students feel less socially connected in an online learning classroom. Answering email with a shorter turn-around time is pertinent to fostering social presence in the online learning classroom.

Importance of Cognitive Presence in Classroom:

Learning is about mental operations. To get the most out of your online class, think about the different associations and meaning students are developing from the material and the discussions generated during the class. A large gap between what is presented and what is learned means that students aren't cognitively involved in a class, as students may only be superficially interpreting content, thereby missing the overall intent of instruction. The effective delivery of instruction allows students and instructors to maintain cognitive presence within the classroom.

Steps to Create Cognitive Presence:

- Create a triggering event
- Explore the problem
- Integrate new ideas and meanings
- Come to a resolution

19. How can we teach creativity and innovation?

How Can We Teach Creativity and Innovation: 23.8.23

1. Design Projects to Bring Out Creativity
2. Create a Culture that Promotes Creativity and Innovation
3. Scaffold for Creativity and Innovation