

MAY 2022  
EBS 337  
ICT INTEGRATION IN EDUCATION  
1 HOUR 35 MINUTES

Candidate's Index Number
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Signature:

UNIVERSITY OF CAPE COAST  
COLLEGE OF EDUCATION STUDIES  
SCHOOL OF EDUCATIONAL DEVELOPMENT AND OUTREACH  
INSTITUTE OF EDUCATION

COLLEGES OF EDUCATION  
FOUR-YEAR BACHELOR OF EDUCATION (B.ED)  
THIRD YEAR, END-OF-FIRST SEMESTER EXAMINATION, MAY 2022

MAY 18, 2022      ICT INTEGRATION IN EDUCATION      2:00 PM – 2:35 PM

This paper consists of two sections, A and B. Answer ALL the questions in Section A and TWO questions from Section B. Section A will be collected after the first 35 minutes.

SECTION A  
(30 MARKS)

Answer ALL questions in this Section.

Items 1 to 10 is followed by four options lettered A to D. Read each item carefully and circle the letter of the correct or best option.

Given below are two statements:

**Statement I:** The use of ICT in organizing teaching-learning programmes in the schools has the potential to optimize the learning outcomes.

**Statement II:** Formative assessment provides support to enhancing the quality of teaching-learning sessions.

1. In light of statement, I and II choose the **most** appropriate answer from the options given below.
  - A. Both Statement I and Statement II are correct.
  - B. Both Statement I and Statement II are incorrect.
  - C. Statement I is correct but Statement II is incorrect.
  - D. Statement I is incorrect but Statement II is correct.
  
2. Educators can use video to provide students with .....
  - I. supplemental materials
  - II. content and resources to prepare for assessments
  - III. new material largely outside of class time
  - A. I only
  - B. I and II only
  - C. I and III only
  - D. I, II and III

3. Which of the following is **not** computer hardware?
  - A. Antivirus.
  - B. Monitor.
  - C. Mouse.
  - D. Printer.
  
4. DVD technology uses an optical media to store digital data. DVD is an acronym for .....

  - A. Digital Vector Disc.
  - B. Digital Versatile Disc.
  - C. Digital Visualization Disc.
  - D. Digital Volume Disc.

  
5. The following are suggestions of positives to look for when evaluating videos for instruction:
  - I. Provision of meaningful examples
  - II. Posing of open-ended questions
  - III. Opportunities for students to carry out individual thinking
  - A. I only
  - B. I and II only
  - C. I and III only
  - D. I, II and III
  
6. Which one of the following devices can be used by educators to back up data?
  - A. Floppy Disk.
  - B. Network Drive.
  - C. Tape.
  - D. All of the above.
  
7. In the contemporary classroom, ICT is growing at an enormous rate. Which one of the following is **not** a barrier to technology integration in the classroom?
  - A. Resources.
  - B. Support.
  - C. Time.
  - D. Uncertainty.
  
8. Which of the following is the ultimate purpose of ICT integration in instruction?
  - A. Enhancing students' involvement in learning.
  - B. Optimizing learning outcomes.
  - C. Promoting concerns for economy in use of resources.
  - D. Reducing teachers' workload in terms of transactional hours.
  
9. Digital technology has moved through ..... main eras.
  - A. 3
  - B. 4
  - C. 5
  - D. 6
  
10. Which of the following is the period of the microcomputer era?
  - A. 1950 -1970s
  - B. 1970 -1990s
  - C. 1990 -2000s
  - D. 2000 and above

Indicate whether the statement is true or false by writing "True" or "False" against the statement in the answer column numbered 29 to 35.

SN	Statement	Answer
21.	It is not a big task to suggest that teachers need to up-date their technological skills in a culture where new technologies are being developed.	
22.	The classic classroom computer lab design serves as the default layout in many High School and Colleges.	
23.	The U-shaped computer lab design offers the most privacy for students and reduces to the minimum, the possibility of cheating during tests or exercises.	
24.	If educators do not vet and evaluate technology-based tools before implementing them into their classroom, the technology becomes "hollow expectation".	
25.	Back-to-back computer lab designs allow many students to fit in a relatively small space.	
26.	The use of images in teaching and learning is to satisfy the fact that majority of people are visual learners.	
27.	WebQuest is a type of educational software that can track student responses; make inferences about his/her strengths and weaknesses; and then tailor feedback, provide additional exercises, or offer hints to improve performance.	
28.	Mindtools are computer applications that enable learners to represent, manipulate, or reflect on what they know, rather than to reproduce what someone else knows.	
29.	Representational graphics are used to represent the actual appearance of something.	
30.	Anti-spyware programs install themselves onto computers to gather personal information.	

Items 21 to 30 consist of three columns labelled **TERM**, **RESPONSE** and **DEFINITION**. Match each term with the appropriate definition by writing the letters of the alphabets in the appropriate box of the **RESPONSE** column.

S/N	TERMS	RESPONSE	DEFINITION
21	Hypermedia		A. Linking textual information and presenting it in a non-linear fashion.
22	Teleconference		B. The growing use of video to allow participants at remote locations to see, hear, and participate in proceedings, or share visual data.
23	Pre-Microcomputer Era		C. Refers to the delivery of information that combines different content formats (motion video, audio, still images, graphics, animation, text, etc.).
24	Microcomputer era		D. The use of computers to create, process, store, retrieve, and exchange all kinds of electronic data and information.
25	Hypertext		E. Symbolic, pictorial representation of any function or task.
26	Information technology		F. Era where a small, relatively inexpensive computer with a microprocessor as its central processing unit (CPU) has become the bane of computing.
27	Educational technology		G. Era where computers were first instructionally used in the 1950s to train MIT pilots in flight simulators.
28	Uniform Resource Locator		H. A logical address that identifies a resource on the Internet.
29	Multimedia		I. The study and ethical practice of facilitating learning and improving performance by creating, using and managing appropriate technological processes and resources.
30	Icon		J. A non-linear medium of information that include: video, audio, graphics, plain text and hyperlinks
			K. Encourage student to take responsibility for their learning. Move around the room and attend to individual needs
			L. Concept where text is combined with images.

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SECTION B  
[30 MARKS]

Answer only TWO questions from this section.

1. a. Explain the term *educational technology*. 3 marks  
b. What is the most important advantage of using a computer laboratory in terms of practice? 4 marks  
c. ICT integrated classrooms change the complex of personal, social, and structural factors, which constitute the learning environment. Explain this assertion. 6 marks  
d. State any **two** characteristics of hypermedia applications. 2 marks
  
2. a. There are issues which impact the use of technology one of which is social issues. Explain how social issues impact the use of technology in the classroom. 4 marks  
b. Explain the term *cloud computing*. 3 marks  
c. State any **three** benefits of using technology in the classroom. 3 marks  
d. Video is ideally suited to showing practical demonstrations of a task or theory. Explain why teachers must teach with video. 5 marks
  
3. a. Teachers must plan carefully for the use and integration of computers and technologies in the classroom. Explain any **two** considerations teachers should make in adopting technology use in the classroom. 5 marks  
b. State any **three** barriers to integrating technology into the curriculum. 3 marks  
c. How do multimedia tools such as blogs, social networks and wikis promote group or collaborative learning? 5 marks  
d. Using multimedia in classroom helps educators engage students and provide them with valuable learning opportunities. State any **two** merits of multimedia use in the classroom. 5 marks