DECEMBER 2021
EBS 337SW
ICT INTEGRATION IN EDUCATION
1 HOUR 35 MINUTES

Candidate's Index Number:
Signature:

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

COLLEGES OF EDUCATION
ONE-YEAR THREE-SEMESTER BACHELOR OF EDUCATION
COHORT I, LEVEL 300, END-OF-SECOND SEMESTER EXAMINATION – DECEMBER 2021

DECEMBER 24, 2021 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 the questions in this Section.

For items 1 to 16, each stem is followed by four options lettered A to D. Read each item carefully and circle the letter of the correct or best option.

1. PCK refers to .....
   A. Paradigm Content Knowledge.
   B. Pedagogical Content Knowledge.
   C. Pedagogical Context Knowledge.
   D. Potential Context Knowledge.

2. Which of the following is **not** a method of teaching?
   A. Active teaching.
   B. Concept attainment.
   C. Lecturing.
   D. Socrative method.

3. Which of the following elements of multimedia, falls under the static element?
   A. Animation.
   B. Audio.
   C. Text.
   D. Video.

4. The guided inquiry approach in which learners develop understanding through comparison of facts is called .....
   A. Concept Attainment.
   B. Concept Formation.
   C. Lecturing.
   D. Socratic Instruction.

5. Teachers must know what specific technology is suitable for addressing particular subject matter materials. This is .....
   A. CK
   B. PCK
   C. TCK
   D. TK

6. Teachers should be able to transform the subject matter for teaching, such as finding multiple ways to represent materials and adapting them to meet the need of their students. This concept falls in line with .....
   A. CK
   B. PCK
   C. TCK
   D. TK

7. Which of the following will you **not** consider as a factor making teaching highly complex? The nature of the .....
   A. students.
   B. subject matter.
   C. teacher.
   D. teaching and learning environment.

8. The purpose of ICT integration in education is for .....
   A. enhancing students' involvement in learning.
   B. optimising learning outcomes.
   C. promoting concerns for economy in use of resources.
   D. reducing workload of teachers in terms of transactional hours.

9. The use of on-screen text or symbols to highlight important information when using videos in teaching and learning is called .....
   A. matching modality.
   B. segmenting.
   C. signalling.
   D. weeding.

10. Educators need to continually review and ..... teaching and learning and make efforts to improve them.
    A. apply
    B. computer
    C. evaluate
    D. use.

11. Which one of the following is **not** a key principle for implementing ICT in education?
    A. ICT encourages bad practice among pupils.
    B. ICT helps to achieve education and development goals.
    C. ICT supports data driven decision making.
    D. The use of ICT enhances students' knowledge and skills.

12. A JHS teacher has one computer in the classroom that is connected to the Internet. Which of the following would be the most effective plan for student use of this computer? Having students use the computer .....
    A. as a reward for superior performance.
    B. for research activities.
    C. to complete drill-and-practice activities.
    D. to practice basic computer skills.

13. Digitized music, speech, or other sounds stored and produced by a computer refers to .....
    A. audio.
    B. graphics.
    C. text.
    D. video.

14. Which one of the following is **not** an advantage of using multimedia in the classroom? It .....
    A. absorbs representations created by others.
    B. empowers students to create and design.
    C. improves reflective thinking.
    D. provides students with suitable learning styles.

15. Teaching the types of computers using videos for demonstration is an example of .....
    A. Technological Content Knowledge (TCK).
    B. Technological Knowledge (TK).
    C. Technological Pedagogical Content Knowledge (TPCK).
    D. Technological Pedagogical Knowledge (TPK).

16. All the following are primary roles computers can serve **except** computer as a .....
    A. mind tool.
    B. support for reflection.
    C. teaching model.
    D. tutor.

Items 17 to 20 are statements followed by True and False options. Read each statement carefully and indicate whether it is True or False by circling the letter of the correct option.

17. Pedagogical Content is a key element of TPACK.
    A. True
    B. False

18. Knowledge about general teaching approaches and how they should be used for different subjects is pedagogical knowledge.
    A. True
    B. False

19. TPACK is the knowledge about the actual subject matter to be taught.
    A. True
    B. False

20. TPACK is a conceptual framework for only high school math and science teachers to integrate technology into classrooms.
    A. True
    B. False

Items 21 to 30 consist of three columns labelled TERMS, RESPONSE and DEFNITION. Match each term with the appropriate definition by writing the letters of the alphabet in the appropriate box under the RESPONSE column.

S/N	TERMS	RESPONSE	DEFINITION
21	Cooperative learning		**A.** A guided inquiry technique in which students are asked to examine and classify phenomena inductively
22	Organisation		**B.** Encourage student to take responsibility for their learning. Move around the room and attend to individual needs
23	Computer as a tutor		**C.** Speak courteously to create positive role models for student
24	Hypermedia		**D.** Knowing the entry behaviour, learning styles and the bio data of learners
25	Communication		**E.** One way of integrating technology is by allowing learners to search for their own information on the internet without or with minimal support from the instructor.
26	Discovery Learning		**F.** Using variety of approaches to encourage students to share their ideas together to foster learning
27	Concept Attainment		**G.** The computer typically used as a teaching machine to teach new concept
28	Analysis		**H.** A learning platform designed to provide educators, administrator and learners robust, and secure learning
29	Mobile learning		**I.** A non-linear medium of information that include: video, audio, graphics, plain text and hyperlinks
30	Moodle		**J.** The use of ICT tools to facilitate learning anywhere, any time

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SECTION B
[30 MARKS]

Answer any TWO questions from this Section in the booklet provided.

1.

a. As a new teacher posted to a school which has no ICT lab for instruction, you have been provided with funds to establish a computer lab for your school. Discuss **three** questions to consider when designing and planning your computer laboratory stating a reason for each consideration. **[6marks]**

b. Outline **three** benefits of using multimedia in the classroom. **[6marks]**

c. Explain any **three** barriers of integrating TPACK in the classroom. **[3 marks]**

2.

a. State **three** ways of maintaining and managing computer laboratories. **[6marks]**

b. What is the difference between computing and ICT? **[4marks]**

c. List **five** duties of a computer laboratory manager. **[5marks]**

3.

a. The TPACK model highlights areas of overlap between the three core components of technological implementation and integration into a learning environment. With the aid of a diagram, briefly discuss the three core components of the TPACK Model. **[9marks]**

b. State any **three** benefits of technology integration in the classroom **[6marks]**