750   **EDUCATIONAL MEDIA AND TECHNOLOGY**

Time: 3 Hours   **ANSWERS**   **Year: 2021**

Instructions.

1. This paper consists of sections A and B with a total of **Fourteen (14)** questions.

2. Answer **all** questions from section A and **four (4)** questions from section B.

3. Section A carries **forty (40)** marks and section B Carries **sixty (60)** marks.

4. Cellular phones are **note** allowed in the examination room.

5. Write your **examination Number** on every page of your answer booklet(s).

SECTION A (40 Marks)

Answer all questions from this section. Each question carries 4 marks.

1. Outline four advantages of audiovisual learning materials over textual materials.

Audiovisual materials combine both sound and images, making it easier for learners to grasp and retain information because the message appeals to more than one sense at the same time.

They help simplify complex concepts and processes by presenting them in a visual and practical form, which makes it easier for learners to understand topics that might be difficult through text alone.

Audiovisual materials increase learners' interest and attention during lessons because they are lively and engaging compared to plain text, reducing boredom in the classroom.

They enhance memory retention since learners tend to remember what they both see and hear better than what they only read, making learning more effective and lasting.

2. Explain four types of technology as used in educational media and technology.

Print technology involves the use of printed materials such as textbooks, newspapers, charts, and workbooks to deliver instructional content to learners.

Electronic technology uses devices like radios, televisions, and video players that rely on electrical power to transmit audio and visual information in teaching and learning.

Digital technology includes internet-based tools like computers, smartphones, projectors, and educational software that facilitate interactive and online learning.

Mechanical technology involves manually operated tools and equipment like chalkboards, overhead projectors, and hand-driven duplicating machines used to support instruction.

3. (a) Briefly describe two ways used to maintain educational media and technology.

Regular inspection is essential for maintaining educational media and technology. Teachers and school staff should routinely check equipment and materials to ensure they are in good working condition and repair any faults immediately.

Proper handling and usage help maintain media and technology. Users should be trained on the correct way to operate and store equipment to prevent unnecessary damage and prolong their usability.

(b) Identify two conditions to consider when storing electronic educational media.

Electronic educational media should be stored in a clean and dry environment to protect them from dust, moisture, and humidity, which could cause damage or malfunction.

They should also be kept in a secure and well-ventilated storage room to avoid overheating and to safeguard them from theft, unauthorized use, or accidental breakage.

4. Required to give the meaning of the terms. (a) Video cassette (b) Globes (c) Filmstrips (d) Poster as used in educational media and technology.

A video cassette is a plastic cartridge containing a magnetic tape used to record and play back video and sound when inserted into a video cassette recorder, often used for instructional films and documentaries.

Globes are three-dimensional, spherical representations of the earth used in teaching geography to help students visualize continents, oceans, and countries in their correct positions and proportions.

Filmstrips are a series of still images arranged in a strip of film and projected onto a screen in sequence, usually accompanied by recorded sound or a teacher's explanation to support classroom instruction.

A poster is a large printed paper or card containing visual images, messages, or information meant to be displayed on walls or boards to reinforce lessons and promote awareness of specific topics in the classroom.

5. Identify four strengths of using non-projected aids for the classroom presentation.

Non-projected aids are simple and do not require electricity or complex devices, making them convenient to use in areas where power supply and technology may be limited.

They are inexpensive and easy to prepare since materials like charts, flashcards, and real objects can be made from locally available resources.

Non-projected aids provide direct and immediate reference materials that learners can touch, see, and interact with, enhancing hands-on learning and participation.

They promote flexibility in teaching since they can be easily modified, moved, or adapted to suit different lessons and teaching conditions without the need for special equipment.

6. Outline the qualities of educational media that can be used to inspire learning among learners in the teaching and learning process.

Educational media should be accurate, providing reliable and correct information to avoid misleading learners and to build trust in instructional materials.

They must be relevant to the learners' level, needs, and the subject content so that the materials effectively support the intended educational objectives.

The media should be attractive and engaging, using clear visuals, color, sound, and appealing design to capture learners' attention and sustain their interest throughout the lesson.

They need to be durable and easy to use so that they remain functional over time, are safe for learners, and can be operated or handled by both teachers and students without difficulty.

7. Justify the statement that "preparation of education media should go hand in hand with conserving the school environment".

Preparation of educational media often involves the use of materials like paper, wood, or plastic, and careless handling or disposal of these resources can lead to environmental pollution.

When teachers use recycled and locally available materials for making teaching aids, they reduce waste and avoid unnecessary depletion of natural resources, supporting environmental conservation.

Proper disposal of used or damaged instructional media like old charts or posters helps maintain cleanliness and hygiene within the school environment.

Involving students in making educational media from reusable materials educates them on environmental responsibility, encouraging sustainable practices beyond the classroom.

8. Briefly explain four roles of educational media in facilitating the effective teaching and learning process.

Educational media simplify difficult concepts by presenting them in a clear, visual, or practical manner, making it easier for learners to understand and remember new ideas.

They promote active participation by involving learners in observing, listening, and interacting with instructional materials, which improves concentration and engagement.

Media save time in teaching by quickly illustrating concepts that would take longer to explain using words alone, increasing efficiency in lesson delivery.

They cater for different learning styles, such as visual, auditory, and kinesthetic learners, ensuring that all students have an equal opportunity to understand the lesson content.

9. (a) Give the meaning of the terms (i) Imitative media production (ii) Adaptive media production.

Imitative media production refers to the creation of instructional materials by directly copying or reproducing existing teaching aids without making significant changes or modifications.

Adaptive media production involves adjusting, improving, or modifying existing educational media to suit the specific needs, context, or abilities of a particular group of learners or a teaching situation.

(b) Briefly describe the importance of manual in the use of educational media and technology.

A manual provides clear instructions and guidelines on how to use educational media and technology correctly and safely, reducing the risk of misuse or damage.

It helps users understand the functions and operations of different equipment, making it easier for teachers and students to utilize the media effectively in the learning process.

The manual offers troubleshooting tips and maintenance procedures, which help in keeping the media in good working condition and prolonging their lifespan.

It serves as a training tool for new users, ensuring that everyone handling the equipment has a consistent and accurate understanding of its operation and care.

10. Give factors that teachers should consider when selecting educational media and technology.

Teachers should consider the relevance of the media to the lesson objectives to ensure that the materials directly support the intended learning outcomes.

The age, ability, and interests of the learners must be taken into account so that the selected media are suitable, engaging, and appropriate for the students' needs.

The availability of resources and facilities, including power supply, storage, and operating equipment, should be considered to determine if the media can be used effectively in the classroom.

Cost-effectiveness is important, meaning teachers should select media that are affordable, durable, and easy to maintain within the school's financial capacity.

SECTION B (60 Marks)
Answer all questions from this section. Each question carries 15 marks.

11. Examine five important aspects a teacher should observe when making still pictures to be used in teaching and learning process.

A teacher should ensure that the pictures are clear and simple, avoiding unnecessary details that might confuse learners or distract from the main message of the picture.

The size of the picture must be appropriate, large enough to be seen clearly by all students in the classroom, even those seated at the back.

The content of the picture should be relevant to the lesson objectives, meaning every picture used must directly support the topic or concept being taught.

Pictures must be accurate and culturally appropriate, ensuring that the images reflect correct information and respect the social and cultural background of the learners.

Durability is another important aspect, where the teacher should use strong and long-lasting materials when preparing still pictures so they can be reused in future lessons without damage.

12. Give five reasons why the use of chalkboard is preferred by many teachers during classroom teaching and learning.

The chalkboard is affordable and cost-effective, making it accessible to most schools, especially those with limited budgets for modern teaching aids.

It is flexible and allows teachers to write, erase, and modify information instantly during lessons based on learners' responses and classroom needs.

The chalkboard can be used without electricity or advanced technology, making it reliable in both rural and urban schools, regardless of power availability.

It encourages active student participation, as teachers can invite learners to the front to write answers, draw diagrams, or solve problems on the board.

The chalkboard provides a large display surface, allowing teachers to present information, diagrams, and illustrations visible to all learners in the classroom.

13. Show how educational broadcasting facilitates the teaching and learning process by giving five points.

Educational broadcasting provides learners and teachers with access to expert knowledge and information from specialists who might not be physically available in the classroom.

It helps to reach a wide audience at the same time, ensuring that even schools in remote areas benefit from the same quality educational content as those in urban areas.

Broadcasting makes learning more interesting and lively by combining audio, visual, and sometimes interactive content, capturing students' attention and improving retention.

It allows for the integration of real-life events, current affairs, and global issues into the classroom, connecting learners to the world beyond their immediate environment.

Educational broadcasting saves time and resources, as one well-produced lesson or program can serve multiple schools and learners without requiring many teachers or physical materials.

14. Examine the usefulness of using computer connected to the digital projector during the teaching and learning process.

Using a computer with a digital projector allows teachers to present multimedia content such as videos, images, animations, and presentations, making lessons more engaging and effective.

It provides a large, clear display visible to all learners, enabling teachers to explain content to the entire class at once without printing many copies of materials.

The system supports interactive teaching by allowing teachers to move between different resources such as PowerPoint slides, internet pages, and educational software during a single lesson.

It improves time management in class, as teachers can quickly display prepared materials and avoid wasting time writing or drawing diagrams on the board.

This technology accommodates diverse learning styles by providing visual, auditory, and sometimes interactive content, helping learners with different abilities to understand lesson concepts better.