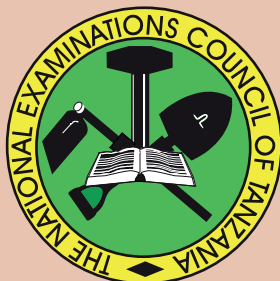


**THE NATIONAL EXAMINATIONS COUNCIL OF TANZANIA**



**CANDIDATES' ITEM RESPONSE ANALYSIS REPORT FOR  
DIPLOMA IN SECONDARY EDUCATION EXAMINATION  
(DSEE) 2018**

**750 EDUCATIONAL MEDIA AND  
TECHNOLOGY**

**THE NATIONAL EXAMINATIONS COUNCIL OF TANZANIA**



**CANDIDATES' ITEM RESPONSE ANALYSIS  
REPORT FOR THE DIPLOMA IN SECONDARY  
EDUCATION EXAMINATION (DSEE) 2018**

**750 EDUCATIONAL MEDIA AND TECHNOLOGY**

*Published by*

The National Examinations Council of Tanzania,  
P.O. Box 2624,  
Dar es salaam, Tanzania.

**© The National Examinations Council of Tanzania, 2018**

All rights reserved

## TABLE OF CONTENTS

FOREWORD .....	v
1.0 INTRODUCTION .....	1
2.0 ANALYSIS OF THE CANDIDATES' PERFORMANCE IN EACH QUESTION .....	3
2.1 SECTION A: Short Answer Questions.....	3
2.1.1 Question 1: Functions of educational media and technology.....	3
2.1.2 Question 2: Educational media and technology and environment....	6
2.1.3 Question 3: Principles of teaching and learning in educational media and technology. ....	10
2.1.4 Question 4: Production of traditional and modern educational media and technology. ....	12
2.1.5 Question 5: Principles of teaching and learning in educational media and technology .....	15
2.1.6 Question 6: Care and maintenance of educational media and technology. ....	18
2.1.7 Question 7: Production of traditional and modern educational media and technology. ....	21
2.1.8 Question 8: Principles of teaching and learning in educational media and technology. ....	23
2.1.9 Question 9: Categories of educational media and technology. ....	26
2.1.10 Question 10: Categories of educational media and technology.....	29
2.2 SECTION B: ESSAY QUESTIONS.....	32
2.2.1 Question 11: Characteristics of educational media and technology.....	32



2.2.2	Question 12: Production of traditional and modern educational media and technology. ....	37
2.2.3	Question 13: Types of educational media and technology .....	41
2.2.4	Question 14: Categories of educational media and technology .....	47
2.2.5	Question 15: Production of traditional and modern educational media and technology. ....	52
2.2.6	Question 16: Care and maintenance of educational media and technology. ....	58
3.0	PERFORMANCE OF CANDIDATES IN EACH TOPIC.....	63
4.0	CONCLUSION.....	63
5.0	RECOMMENDATIONS: .....	63
Appendix A	.....	64

## FOREWORD

The National Examinations Council of Tanzania is pleased to issue this report on Item Response Analysis for the 2018 Diploma in Secondary Education Examination (DSEE) in Educational Media and Technology subject. The report provides feedback to students, tutors, parents, policy makers and the public in general on the performance of candidates and the extent the instructional goals and objectives were met.

The Diploma in Secondary Education Examination marks the end of the two years of Diploma Level in Education. It is a Summative Evaluation which shows the effectiveness of the Education system in general and education system in particular. Basically, the candidates' responses to the examination questions indicate what the education system was either able or unable to offer students in their two years of the Diploma in Secondary Education.

In this report, factors which enabled the candidates to answer the questions correctly or incorrectly have been analysed. The analysis shows that candidates with higher scores provided appropriate responses; were able to understand demand of questions; had basic knowledge on the subject matter and possessed skills on essay writing. However, the candidates with lower scores depicted contrary attributes.

The feedback provided is expected to enable the education administrators, College Principals, Tutors and Student teachers to identify proper measures to take in order to improve candidates' performance in the future examination administered by the Council

The National Examinations Council of Tanzania will highly appreciate comments and suggestions from tutors, students and the public in general that can be used for improving future Item Response Analysis Reports. Finally, The Council is grateful to all stakeholders who provided valuable assistance in preparation of this report.



Dr. Charles E. Msonde  
**EXECUTIVE SECRETARY**

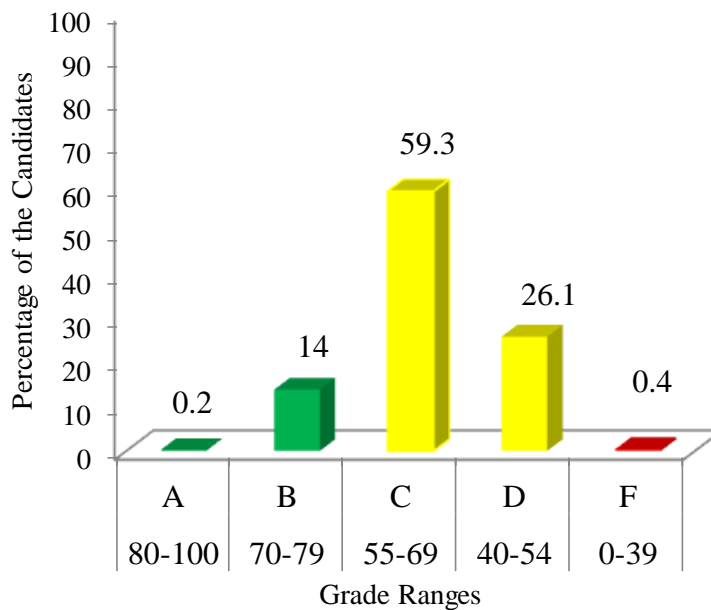
## 1.0 INTRODUCTION

This report analyses the performance of the candidates who sat for the Diploma in Secondary Education Examination (DSEE) 2018 in Educational Media and Technology subject. The paper covered the 2009 Tanzania Institute of Education (TIE) syllabus. A total of 806 candidates sat for the DSEE 2018 in Educational Media and Technology subject of which 803 candidates (99.6%) passed while 03 candidates (0.4%) failed as shown in table 1.

**Table 1** show the performance of candidates sat for the Examination with Grades.

Sex	Candidates sat	Candidates passed		Candidates Failed		Grades			
		No	%	No	%	A	B	C	D
<b>F</b>	300	300	100	0	0.0	0	44	176	80
<b>M</b>	506	503	99.4	3	0.6	2	69	302	130
<b>T</b>	<b>806</b>	<b>803</b>	<b>99.6</b>	<b>3</b>	<b>0.4</b>	<b>2</b>	<b>113</b>	<b>478</b>	<b>210</b>

General performance in the examination have been categorised into five grade ranges. The performance of the candidates is regarded as *fail (F)* if the scores range from 0 to 39 marks, satisfactory (D) if the scores range from 40-54 marks, Good (C) if the scores range from 55-69 marks, Very good (B) if the scores range from 70-79 marks and Excellent (A) if the scores range from 80-100 marks as shown in figure 1.



**Figure 1:** *The Candidates' Performance in Examination with grades.*

The analysis from **Figure 1** shows that few candidates 0.2%, 14.0% passed with grade A and B respectively, while most of the candidates 59.3% passed with grade C, whereas 26.1% passed with grade D. The candidates who failed (grade F) were 0.4%. The General Performance in this subject was good as 99.6% of the candidates sat for Examination passed with grade A to D.

The examination consisted of two sections, A and B, with a total of sixteen (16) questions. Section A had ten (10) short answer questions, each question carried four (4) marks; making a total of 40 marks. Section B had six (6) essay questions, from which candidates were required to attempt any four (4) questions. Each question carried 15 marks; making a total of 60 marks. The candidates were instructed to attempt a total of 14 questions in all sections. The questions were set from the following topics: Functions of Educational Media and Technology, Educational Media and Technology and Environment, Principles of Teaching and Learning in Educational Media and Technology, Production of Traditional and Modern Educational Media and technology, Care and Maintenance of Educational Media and Technology and Categories of Educational Media and Technology.

In this report, the analysis of each question is based on the category of the question items i.e. Short answer items in section A and essay type items in section B. In short answer items, the performance of the candidates is regarded as *Weak* if the scores range from 0 to 1.5 marks, *Average* if the scores range from 2 to 2.5 marks, and *Good* if the scores range from 3 to 4 marks. For essay items the performance of the candidates is regarded as *Weak* if the scores range from 0 to 5.5 marks, *Average* if the scores range from 6 to 10 marks and *Good* if the scores range from 10.5 to 15 marks.

Samples of candidates' answers are attached to illustrate their responses and the Appendix A for analysis in each topic is attached whereby the green colour depicts good performance while the yellow colour depicts average performance. It is expected that the report will be useful to educational stakeholders and will enable tutors and student teachers to improve the teaching and learning process in Educational Media and Technology subject.

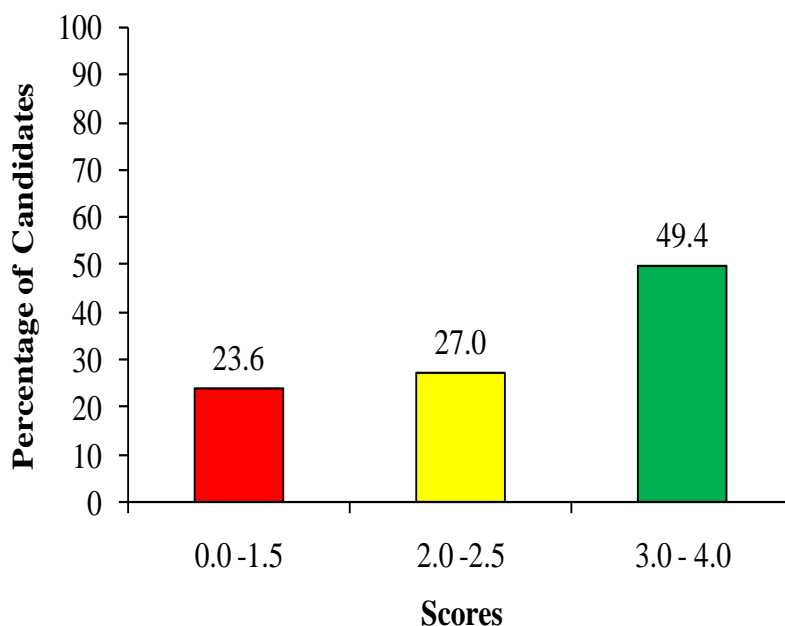
## **2.0 ANALYSIS OF THE CANDIDATES' PERFORMANCE IN EACH QUESTION**

### **2.1 SECTION A: Short Answer Questions**

There were ten (10) short answer questions in this section, each carrying four (4) marks, Candidates were required to answer all questions, making a total of 40 marks for this section.

#### **2.1.1 Question 1: Functions of educational media and technology.**

This question required candidates to mention four functions of educational media and technology. The question was attempted by 806 candidates (100%) and the performance in this question was as follows: 398 candidates (49.4%) scored 3 to 4 marks indicating good performance, 218 candidates (27%) scored 2 to 2.5 marks indicating average performance and 190 candidates (23.6%) scored 0 to 1.5 marks. indicating poor performance. Generally the performance in this question was average. This performance is summarized in figure 2.



**Figure 2:** *The Candidates' Performance in Question 1.*

Data analysis in question 1 shows that 398 candidates (49.4%) scored from 3 to 4 marks, indicating that they understood the demands of the question and had knowledge on the functions of educational media and technology since they were able to provide the correct responses like: *simplify teaching and learning process, motivate learners, saves time during teaching and learning process, compensate language deficient to learners, rise the interest of the learners in teaching and learning process*. Further analysis shows that the candidates who scored full 4 marks, managed to mention all four functions of educational media and technology correctly such as: *motivate learners, encourage active participation of learners, helping efficient use of teaching and learning, helps to deliver information also lead to active participation of learners*, indicating that the candidates had enough knowledge on the functions of educational media and technology. These candidates also met the demand of the question. Extract 1.0 is a sample of correct responses from one candidate who scored 4 marks.

### Extract 1.0

1.	four functions of education media and technology
i)	It used to motivate the student in learning
ii)	It used to capture the attention of students
iii)	It used to rise the interest in learning and teaching
iv)	It used to facilitate the process of teaching and learning.

**Extract 1.0:** a sample of correct responses from one candidate who was able to mention functions of educational media and technology.

Moreover, the analysis noted that 218 candidates (27%) with average scores from 2 to 2.5 marks failed to mention the functions of educational media and technology. Some of the candidates in this category mixed-up the correct and incorrect responses as they mentioned two correct responses and other two incorrect. These candidates simply lacked enough knowledge and skills on the concept of functions of educational media and technology. For example, one candidate who scored average marks (2 marks) provided the following functions: *motivate learners, transfer skills and knowledge, saves time in teaching and learning, entertain the learners*. Responses of another candidate who scored average marks was: *simplify teaching and learning process, increase motivation to the learners, improve development of educational in Tanzania, helps to get teaching and learning materials*. These candidates identified two correct functions of educational media and technology and other two incorrect.

Likewise 190 candidates (23.6%) scored 0 to 1.5 marks as they failed to provide correct answers, which led to be in poor performance category due to misconception of the question, they provided wrong responses as follows: *educational media and technology they are for entertainment, refreshment, feelings*, which fall into social entertainment perspective instead of educational purpose. Moreover, other candidates (3.7%) scored 0 marks due to inadequate knowledge of the concept tested. For example, one candidate failed completely to understand the question and provided categories of educational media and technology i.e. *printed media, non-printed media, liquid media and gaseous media* instead of the functions of

educational media and technology as the question demanded. Extract 1.1 is a sample of incorrect responses from the candidate who scored zero marks.

### Extract 1.1

i.	Printed media
ii	Non printed media
iii	Liquid Media
iv	Gaseous Media

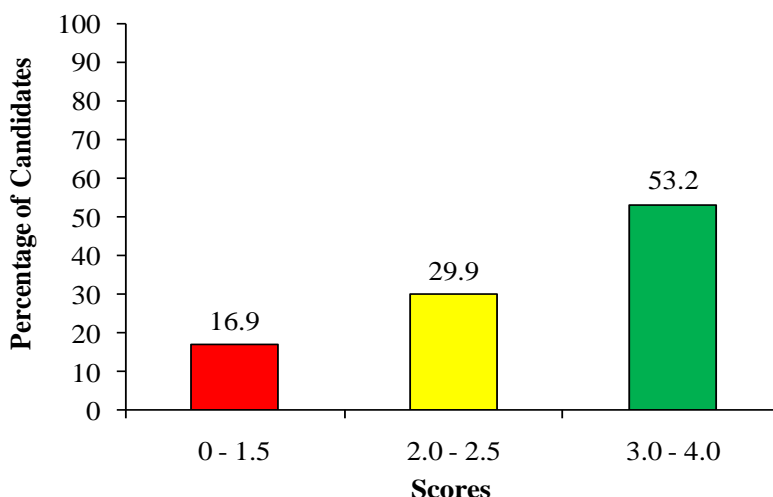
**Extract 1.1** is a sample of incorrect responses from the candidate who mentioned categories of educational media and technology instead of functions of educational media and technology.

### 2.1.2 Question 2: Educational media and technology and environment.

This question had two parts (a) and (b). In part (a), the question required candidates to define the following terms of educational media and technology: Recycling and Environmental conservation. Part (b) of the question required candidates to explain three stages of recycling materials.

The data analysis shows that the question was attempted by 806 candidates (100%) of which 429 candidates (53.2%) scored from 3 to 4 marks indicating good performance, 241 candidates (29.9%) scored from 2 to 2.5 marks indicating average performance and 136 candidates (16.9%) scored from 0 to 1.5 marks indicating poor performance. According to these data general performance in this question was good as 83.1 percent of the candidates who attempted this question scored from 2-4 marks. Figure 3 illustrates the candidates' performance in Question 2.





**Figure 3:** *The Candidates' Performance in Question 2.*

The analysis of candidates' performance in question 2 shows that 429 candidates (53.2%) scored from 3 to 4 marks. This indicates that the candidates understood the demand of the question and had knowledge on the concept of recycling since were able to provide the correct responses. In part (a) of the question, the candidates were able to define clearly the term *recycling as re-using, re-made of material which has been already used* while *environmental conservation as activity of protecting natural resources*. Another candidate defined the term *recycling as the process of collecting used materials which are waste products and re-processing them to produce new materials for use* and *environmental conservation as the process of preventing the environment from destructions*. In part (b), candidates explained clearly the three stages of recycling materials as follows: In stage one, they indicated *collection of old products*; In stage two, *processing and manufacturing of old products* and in stage three *new materials ready to be re-used*.

Moreover, 262 candidates (32.5%) who scored the full 4 marks were able to provide correct responses. For example, responses of one candidate who scored full marks were: In part (a) defined recycling as *the process of collecting different materials which are used and seem to be waste products and make them into new product for re-use* while *Environmental conservation as the process of protecting the environment and natural resources from being destroyed*. In part (b), candidates explained clearly the three stages of recycling materials as follows: stage one, *collection of waste products*, stage two, *processing the waste products into new goods*

and in stage three *re-use the manufactured goods*. The analysis observed that those candidates who responded correctly to this question had enough skills and the language used was clear. Extract 2.0 is a sample of correct responses from a candidate who scored high marks.

### Extract 2.0

2.	a) (i) Recycling: is the process of making or processing used or old materials into new products.
	(ii) Environmental conservation is the process of conserving and preserving environment in a good manner or proper way.
	b) (i) collecting the old materials from environment
	(ii) Processing or manufacturing them into new products.
	(iii) Use the recycled materials as has been already new products.

**Extract 2.0** a sample of correct responses from a candidate who was able to define the terms recycling and environmental conservation correctly and explained three stages of recycling materials.

Further analysis shows that 241 candidates (29.9%) with average marks in this question scored from 2 to 2.5 marks, they were able to respond to the question partially. Most of them failed to explain stages of recycling materials in part (b). For instance one of the candidates provided the following responses: Part (a) *recycling as the process of converting waste products into useful products for teaching and learning process* while *environmental conservation as the process of keeping and conserving environment to be conducive for teaching and learning process*. In part (b), stages of recycling materials: In stage one, *collecting of materials*; stage two, *sorting of materials* and in stage three *cleaning the materials*. Another responses of the candidate who scored average marks were: In part (a) *defined recycling as the process whereby materials which are already used are reprocessed to be re-used again* while *environmental conservation as the process of keeping the environment away from destruction*. In part (b),

stages of recycling materials: In stage one, *preservation*; stage two *maintenance* and in third stage *recycling*. The analysis observed that those candidates scored average marks because had partial knowledge and skills on the concept of recycling.

On the other hand, 190 candidates (16.9%) failed to provide correct responses as required, and they scored 0 to 1.5 out of 4 marks, which led to poor performance due to misconception of the question, they provided wrong responses, for example they defined recycling as *movements*, *Others defined the term recycling as all storing material like dust been* and *environmental conservation as a process of cutting or clearing of bushes. while others defined environmental conservation as the process of clearing the environment*, instead of the ways environment can be protected for teaching and learning concept. For example, responses of one candidate who scored poor marks in this question were: In part (a) defined recycling as *the process of renew the waste disposal to be used again*, and environmental conservational as *the process of keeping environment in the good way*. In part (b) explained the stages of recycling as *first stage clean waste disposal, second stage taking waste disposal to industry, and third stage to check waste if are finished in the industry*. According to these responses the analysis observed that, the candidates lacked knowledge and skills on recycling and environmental conservation: Extract 2.1 is a sample of incorrect responses from a candidate who scored low marks.

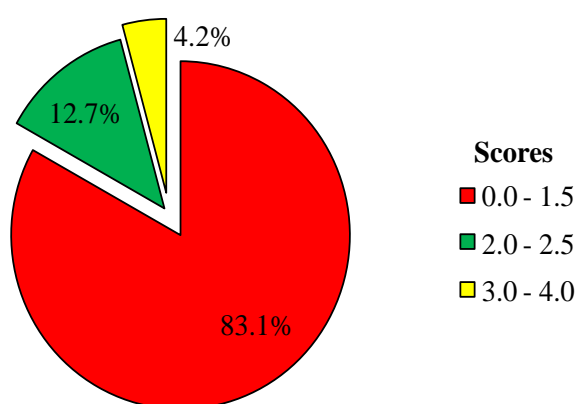
### Extract 2.1

Q:	a) (i) is process of renew the waste disposal to be <del>in</del> using again
	(ii) is the process of <del>not</del> keeping enviroment in the good way
	(b) (i) to clean waste disposal
	(ii) to take waste disposal in industry
	(iii) to <del>make</del> the waste check wast if are finished in the industry

**Extract 2.1** a sample of wrong responses from a candidate who described the concepts of waste disposal instead of describing recycling and environmental conservation.

### 2.1.3 Question 3: Principles of teaching and learning in educational media and technology.

In this question, candidates were required to describe four basic teaching aids which are readily available for every teacher at all the time. The question was attempted by 806 candidates (100%) and the general performance was poor, as 670 candidates (83.1%) scored from 0 to 1.5 marks, 102 candidates (12.7%) scored from 2 to 2.5 marks and 34 candidates (4.2%) percent scored from 3 to 4 marks. The performance is summarised in Figure 4.



**Figure 4:** *The Candidates' Performance in Question 3.*

The data analysis shows that majority 670 candidates (83.1%) scored poorly in this question, their scores ranged from 0 to 1.5 marks as they failed to understand the demands of the question and had poor knowledge on basic teaching aids which are readily available. Candidates provided teaching aids which need to be bought or constructed instead of ready for use teaching aids. They described *charts, models, pictures, graphs, lesson notes, manila paper, lesson plan, pointer and ruler, duster, pictures, printed media, real objects, chalks, liquid media, gaseous media, audio, audio visual, models, drawings* etc. Other candidates went further by providing functions of teaching aids like: *simplifying teaching and learning process motivate learners, arose learner's interest*, instead of basic teaching aids like: *chalkboard, book, language and classroom* as the question demand. Candidates' responses indicate that they lacked knowledge and skills as they failed to differentiate between teaching aids which need to be prepared before use and readily available teaching aids. The analysis, further shows that, other candidates misinterprets the question

as described the qualities of educational media and technology instead of basic teaching aid which are readily available, as shown in Extract 3.0. shows the responses from one of the candidates who perform poor.

### Extract 3.0

3.	Four basic teaching aids:
I:	It should be relevant: It's help the students to interest easily when a teacher teaching.
II:	It must be consider the age of the learners when by the students can understand the lesson properly.
III:	It should be large; in which each student can be seen easily.
IV:	It should be tilted so as to lead the understanding of the learner easily.

**Extract 3.0** a sample of incorrect responses from a candidate who described the qualities of educational media and technology instead of basic teaching aids which are readily available for every teacher at all the time.

Further analysis shows that, 102 candidates (12.7%) scored average 2 to 2.5 marks out of total 4 marks in this question as they provided correct and incorrect responses in their explanations. The analysis observed that those candidates who scored averagely had partial knowledge and skills on tested concept, thus they were not able to provide all four correct responses. For example, one candidate's responses were: *chalkboard, duster, textbook and ruler*. The other candidate's responses were: *textbooks, chalkboard, chalks and real objects*. Also the analysis observed another candidate who made repetition of responses in explaining the terms: *chalkboard, textbook, blackboard and blackboard ruler* and the one who provided just two correct responses like *chalkboard and textbook* instead of four responses demanded by the question. The partial and wrong responses are probably being attributed to partial mastering of the concept tested.

On the other hand 34 candidates (4.2%) scored 3 to 4 marks as they managed to provide correct responses on basic teaching aids which are readily available for every teacher at all the time. The data analysis observed that those candidates who scored good marks had adequate knowledge and skills on the basic teaching aids as they presented their explanation in an organised manner. One candidate, for instance, was able to provide all four correct responses such as: *classroom, books, chalkboard and teaching language*. Extract 3.1 is a sample of a correct response from a candidate who scored high marks.

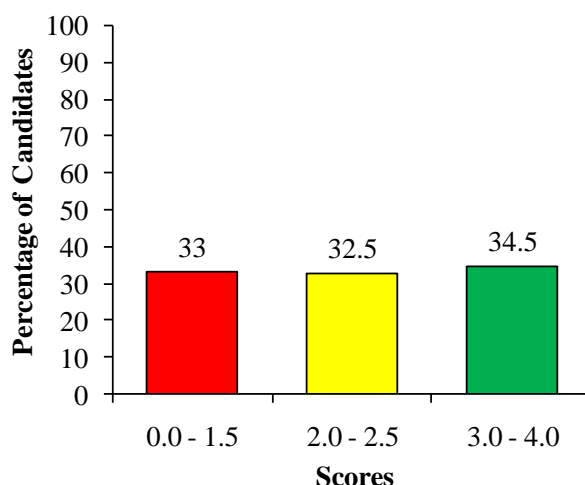
### Extract 3.1

3.	The teaching aids which are available all the time are:
(i)	Blackboard: This is the instructional media which aid the teacher during presentation and clarifying a subject matter
(ii)	Text book: This is a teaching aid which is used by the teacher during teaching
(iv)	Chalks: This aid a teacher to write on the blackboard for more clarification

**Extract 3.1** a sample of correct responses from a candidate who was able to describe basic teaching aids which are readily available for every teacher at all the time.

#### 2.1.4 Question 4: Production of traditional and modern educational media and technology.

In this question candidates were required to outline qualities of an educational media that can be used to motivate students to learn in the teaching and learning process. Data analysis shows that, the question was attempted by 806 candidates (100%) of which 278 candidates (34.5%) scored from 3 to 4 marks indicating good performance, 262 candidates (32.5%) scored from 2 to 2.5 marks indicating average performance and 266 candidates (33%) scored from 0 to 1.5 marks indicating poor performance. Generally, the performance in this question was average as (67%) of the candidates attempted this question scored from 2 to 4 marks. The performance is summarised in Figure 5 below.



**Figure 5:** *The Candidates' Performance in Question 4.*

Data analysis in question 4 showed that, 278 candidates (34.5%) scored from 3 to 4 marks, implies that they understood the demand of the question and had knowledge and skills on the qualities of educational media. These candidates with high performance were able to outline clearly the qualities of educational media. Most of the responses outlined by candidates were: *should be attractive, should be interactive, should be simple and clear, should be relevant to the contents, should be impressive, should correlate with the level of the learners, and should be big enough to be seen clearly.* Candidates who scored full marks was able to provide four correct responses like: *educational media should be big enough to be seen, should correlated with the contents being presented, should be relevant to the level and nature of the learners, should be attractive.* The analysis observed that this candidate was competent with knowledge and skills on qualities of educational media and technology. Extract 4.0 is a sample of a correct response from a candidate who scored full marks.

#### Extract 4.0

4.	i) Educational media should be attractive.
	ii) Educational media should be relevant to the content.
	iii) Educational media should be big and clearly seen.
	iv) Educational media should consider the level of learner.

**Extract 4.0** a sample of correct responses from a candidate who was able to describe four qualities of educational media and technology.

Further analysis indicated that 262 candidates (32.5%) performed average 2 to 2.5 marks out of 4 marks. These candidates mixed correct and incorrect responses in their responses indicating that they had partial knowledge and skills on the qualities of educational media. Most of candidates were able to describe just two correct responses while other responses were incorrect. For instance, the response of one candidate with average score was; *must be simple and clear, must relate with the subject matter, must have the normal size, must be clean*. Another candidate wrote; *should be appropriate to level of the learners, should be clearly and well seen, should be well selected and designed, should provide feedback to the learners*. Some candidates outlined only two responses out of four as required.

The analysis also noted that, 266 candidates (33%) scored poor 0 to 1.5 marks out of 4 marks due to misconception of the question and provided answers contrary to the demand of the question. Among these candidates, there were those who outlined the types and categories of educational media and technology instead of qualities of educational media, ie *traditional media, liquid media, printed media*. Other candidates provided guess responses like: *quality of educational media they should emphasize in construction of teaching aids, the use of projector such as overhead projector, to put much effort*. Another candidate who provided guess responses wrote; *emphasize, balance and unity*. Basing on these responses, the analysis observed that, candidates completely lacked knowledge and skills on qualities of educational media and technology thus provided guess



response. Extract 4.1 is a sample of incorrect responses from a candidate who scored a 0 mark.

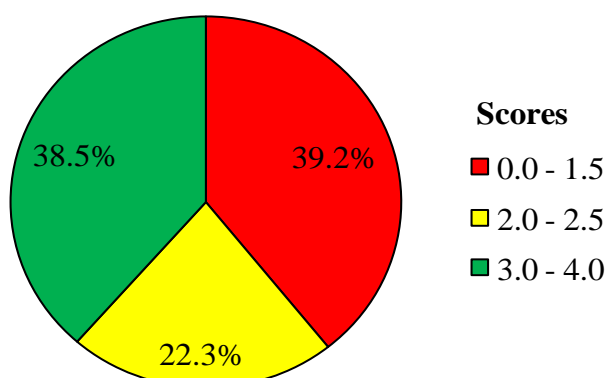
#### Extract 4.1

4.	i). Traditional Media.
	ii). Modern Media:
	iii). Printed Media
	iv). Written Media

**Extract 4.1** a sample of wrong responses from a candidate who outlined types and categories of educational media and technology instead of qualities of educational media.

#### 2.1.5 Question 5: Principles of teaching and learning in educational media and technology.

In this question candidates were required to explain four factors to be considered when designing educational media. The question intended to measure candidates' knowledge on designing educational media. The question was attempted by 806 candidates (100%). Data shows 310 candidates (38.5%) scored from 3 to 4 marks indicating good performance, 180 candidates (22.3%) scored from 2 to 2.5 marks indicating average performance and 316 candidates (39.2%) scored from 0 to 1.5 marks indicating poor performance. The general performance in this question was average since 60.8% of the candidates who attempted this question scored from 2 to 4 marks. Figure 6 below illustrates the candidates' performance in Question 5.



**Figure 6:** The Candidates' Performance in Question 5.

The data analysis reveals that 310 candidates (38.5%) who scored higher from 3 to 4 marks were able to understand the demand of the question and had adequate knowledge and skills as were more conversant with principles of designing educational media. For instance, one candidate who scored full marks was able to explain correctly the four factors to consider when designing educational media as: *should consider objectives of the content, availability of materials, nature of the learners, cost enquired*. Another candidate with full marks wrote: *should consider availability of the materials, objective of the content, nature of the students and cost in terms of financial resources*. With reference to these responses analysis noted that, these candidate were able to provide appropriate points due to their good mastery of the tested concept, and had good language efficiency. Extract 5.0 is a sample of a correct response from a candidate who scored full marks.

#### Extract 5.0

5	(i) Cost in terms of money and time, therefore before designing teacher should consider such factor.
	(ii) Objective of the content, to ensure the lesson objective match with the media.
	(iii) Availability of materials especially local materials like wood, plastic and other should be considered first.
	(iv) Level of learners, to design the media that correlate.

**Extract 5.0** a sample of correct responses from a candidate who was able to describe factors to consider when designing educational media and technology.

Further analysis shows that, 180 candidates (22.3%) who scored from 2 to 2.5 marks out of four marks had partial mastery of the subject matter hence they

provided correct and incorrect answers. For example, one of the candidates with average marks provided correct responses like: *they should consider age of the learners, should relate with the subject matter* and incorrect responses as: *should balance, should move*. Another candidate who provided correct and incorrect responses described correct responses as: *must consider subject contents, must consider age of the learners* and other incorrect responses like: *must emphasize, must consider its balance with space*. These responses imply that the candidates had partial knowledge on the tested concept.

Moreover, 316 candidates (39.2%) who scored 0 to 1.5 marks failed to respond correctly to the question due to lacked of knowledge and skills. Some of them wrote the mixed knowledge or different ideas of the subject. For example, responses of one candidate who wrote different ideas were: *balance, repetition, movement, proportion* these responses do not relate to any concept in educational media and technology subject. Other candidates mentioned functions of educational media and technology such as: *they should motivate learners, they should rises interest to learners, should encourage active participation*. Analysis observed that these candidates had poor mastery of the subject matter as they explained different ideas instead of factors to consider when designing educational media. Extract 5.1 is a sample of wrong responses from a candidate who scored a zero mark.

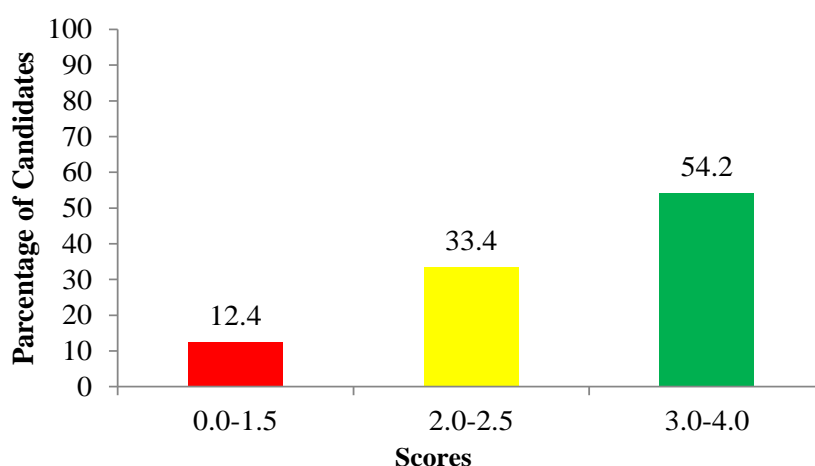
### Extract 5.1

5.	factors to consider when designing educational media.
	(i) believe in yourself that you have the skills in designing
	(ii) Imagination; Imagine the things that you want to design to be educational media
	(iii) Synthesis all ideas that you have in designing the educational media and technology.
	(iv) Eye for beauty.

**Extract 5.1** a sample of wrong responses from a candidate who failed to explain factors to consider when designing educational media.

### 2.1.6 Question 6: Care and maintenance of educational media and technology.

This question required candidates to give the meaning of the following educational media and technology terms: Maintenance, Storing, Cleanliness and Care. The question was attempted by 806 candidates (100%). Data shows that, 437 candidates (54.2%) scored from 3 to 4 marks indicating good performance, 269 candidates (33.4%) scored from 2 to 2.5 marks indicating average performance and 100 candidates (12.4%) scored from 0 to 1.5 marks indicating poor performance. The general performance in this question was good as 87.6 percent of the candidates attempted this question scored from 2 to 4 marks. Figure 7 illustrates the candidates' performance in Question 6.



**Figure 7:** *The Candidates' Performance in Question 6.*

According to data analysis in question 6, candidates' performance shows that 437 candidates (54.2%) scored from 3 to 4 marks, implying that they understood the demand of the question and had adequate knowledge and skills on the concepts. For instance 96 candidates (11.8%) who scored full marks (4 marks) managed to give the detailed meaning of the terms. The analysis noted that these candidates had adequate knowledge and skills and they were conversant in English language which enabled them to describe terms in detail. For example, one candidate's responses were; maintenance

refers to replacement of parts, storing as keeping information or devices in safe place e.g. in computers, cleanliness refers to the condition of being clean, free from dirt or dusts. Care as the general prevention of damage of educational media and technology. Extract 6.0 is a sample of a correct response from a candidate who scored full marks.

### Extract 6.0

6.	@ Maintenance
	Refers to the schedule of preventing the the teaching and learning media for longer time use in future. Maintenance has three forms which are.
	⇒ preventive Maintenance
	⇒ Corrective maintenance
	⇒ Placemant maintenance

6	(b) Storing refers to the proper way of media storage which can be through Catalogue Cabinet, hanging shelves or file storage.
	(c) Cleanliness.
	Refers to the absence of dirt, dust, bad smell, or garbage in order to keep environment safe as well as to protect teaching aids from damage.
	(d) Care.
	Refers to proper protecting of teaching aids right from the moment of using during classroom presentation and after its use.

**Extract 6.0** a sample of correct responses from a candidate who was able to give the meaning of the terms: maintenance, storing, cleanliness and care correctly.

However, 269 candidates (33.4%) who scored average 2 to 2.5 marks as they answered some of terms correctly while others terms incorrectly. The analysis noted that candidates were able to give correct meaning of two to three terms out of four terms required by the question. The failure can be

attributed to inadequate knowledge of the subject matter. For example, candidates provided correct and incorrect definitions of the terms as follows: *maintenance as the process of taking care of a educational media. storing as the process of keeping information in a safe place. cleanliness as the process of preventing media from damage, dusts etc. care as a process of keeping in a safe place.* Among these definitions storing and cleanliness were correct while maintenance and care were incorrect. Another candidate with average scores defined the terms partially as follows: *maintenance as the process of using media effective in teaching in learning process. Cleanliness as the as the process of removing all unwanted materials in a media. Care as the process of protecting in safe area or place.* These responses were partially defined. Other candidates failed completely to define some of the terms, for example storing.

Furthermore, 100 candidates (12.4 %) failed to provide correct answers and scored 0 to 1.5 marks out of 4 marks as had no knowledge on terms of maintenance, storing, cleanliness and care. For example some of them provided incorrect meaning of the concepts. Moreover few candidates (2.5%) who scored a 0 mark failed completely to respond in all four terms of the question. Some of them gave the meaning of those terms referring to social life context, e.g. *care as the act of keeping person in safe condition* instead of educational context. This shows that candidates lacked knowledge. Extract 6.1 is a sample of incorrect responses from a candidate who scored low marks.

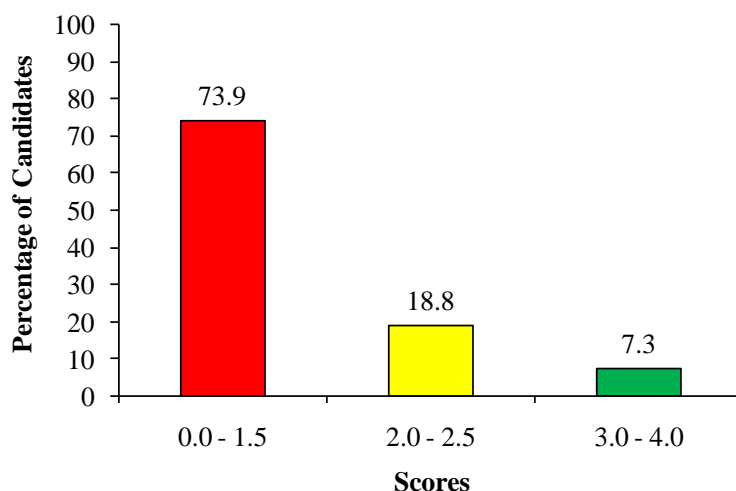
#### Extract 6.1

6.	a) is process of maintaining building the education media.
	b) is process of keeping the media in order
	(c) is process of clearing the media.
	(D) is process of taking care the media which are build

**Extract 6.1** a sample of incorrect responses from a candidate who failed to give meaning of maintenance, storing, cleanliness and care in educational media and technology.

### 2.1.7 Question 7: Production of traditional and modern educational media and technology.

In this question candidates were supposed to identify characteristics of manual in educational media and technology. Data analysis shows that, the question was attempted by 806 candidates (100%) of the candidates of which 596 candidates (73.9%) scored from 0 to 1.5 marks indicating poor performance, 151 candidates (18.8%) scored from 2 to 2.5 marks indicating average performance and 59 candidates (7.3%) scored from 3 to 4 marks indicating good performance. The data above shows that the general performance in this question was poor as 73.9 percent of candidates who attempted this question scored from 0 to 5.5 marks. The performance is summarised in Figure 8 below.



**Figure 8:** *The Candidates' Performance in Question 7.*

Furthermore, data analysis of the candidates' performance reveals that, majority 596 candidates (73.9%) performed poorly from 0 to 1.5 marks due to misinterpretation of the question. The analysis noted that these candidates lacked knowledge of the concept tested as they explained manual like something depends direct to person to operate, instead of 'instructional manual' as used in educational context. Whereas most of them provided functions instead of characteristics of manual as the question demanded. For example, candidates provided the following responses: *it simplify teaching and learning process, it increases the interest of the learners, it increases creativity, it saves time during teaching and learning*

process. Other candidates with 0 marks provided guesses responses, for example one candidate wrote; *should have the preface, should have table of content, should have the cover page, should have list of table*. The analysis noted that these candidates lacked knowledge on manual as instructional aid. Extract 7.0 is a sample of incorrect responses from a candidate who scored a 0 mark.

#### Extract 7.0

7	
i)	sharp shap
ii)	line
iii)	color
iv)	form

**Extract 7.0** a sample of incorrect responses from a candidate who wrote an answer which does not relate to any concept in educational media and technology.

However, 151 candidates (18.8%) who scored average 2 to 2.5 marks had several weaknesses on their responses. Some of them mixed-up correct and incorrect answers, and others provided only two responses. One of the candidates with average marks mixed-up correct and incorrect responses as follows: correct responses were; *manual should provide clear instruction to users, should use simple language*; and incorrect response like: *should provide rules and regulations*, the analysis observed that, these candidates had partial knowledge about instructional manual thus they failed to provide appropriate responses.

On the other way, few candidates (7.3 %) score high 3 to 4 marks indicating good performance because they had adequate knowledge on characteristics of manual in educational media and technology and presented their answers in an organised manner. Majority wrote the following correct responses: *accessible information, enhance memory and should be simple*. Responses of one candidate who scored full marks were:



*should be written in simple language, capture learners attention, should provide clear instructions and should be accessible.* Extract 7.1 is a sample of correct responses from a candidate who scored high marks.

### **Extract 7.1**

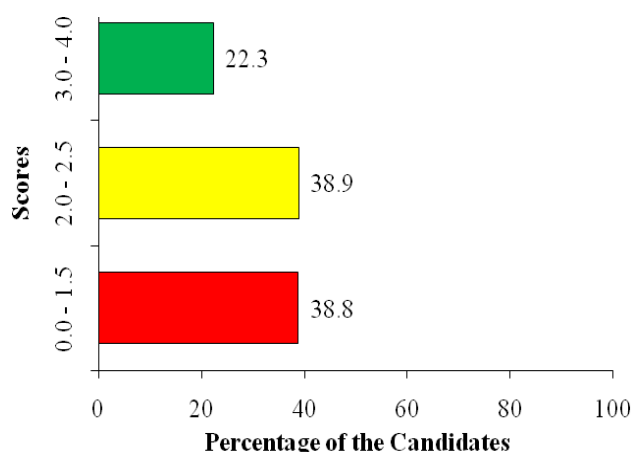
7.	Characteristics of a manual in educational media and technology
	- Should be simple.
	- should be specific.
	- should well organized.
	- should be direct.

**Extract 7.1** a sample of correct responses from a candidate who scored full marks as was able to identify four characteristics of a manual in educational media and technology.

### **2.1.8 Question 8: Principles of teaching and learning in educational media and technology.**

This question required candidates to give the meaning of the given terms in the educational media and technology: Technology with education and Technology of Education.

Analysis showed that, this question was attempted by 806 candidates (100%) 180 candidates (22.3%) scored 3 to 4 marks indicating good performance, 413 candidates (38.9%) scored 2 to 2.5 marks indicating average performance and 313 candidates (38.8%) scored 0 to 1.5 marks indicating poor performance. The general performance of candidates in this question was average as 61.2% of the candidates who attempted the question scored 2 to 4 marks. Figure 9: Illustrates candidates' performances in Question 8.



**Figure 9:** *The Candidates' Performance in Question 8.*

These data showed that 180 candidates (22.3%) who scored high higher marks from 3 to 4 marks had adequate knowledge on the subject matter. They were able to provide meaning of the following terms; Technology with education and Technology of education. For example, one candidate with high marks was able to define the terms as: Technology with education *refers to the integrating of technological equipment such as television radio video in carrying out educational tasks.* Technology of education *refers to the application of scientific knowledge in designing devices which can be used to facilitate educational activities.* Another candidate with high marks defined the terms correctly as follows: Technology with education *refers to the use of different technological devices in carrying out educational tasks.* Technology of education *refers to the application of scientific knowledge and skills in designing programs which facilitate teaching and learning.* This shows that these candidates had adequate knowledge and skills thus they were able to provide the correct meaning of the terms technology of education and technology with education as used in educational media context. Extract 8.0 is a sample of correct responses from a candidate who scored high marks.

### Extract: 8.0

8	a) <u>Technology with education</u> mean that the use of technology during teaching and learning process such as use of computer to facilitate the teaching and learning.
	b) <u>Technology of education</u> means knowledge and skills used in making different things for example computer skills in creative arts, pictures and graphs. which aimed in facilitating the teaching and learning process.

**Extract 8.0:** a sample of correct responses from a candidate who was able to provide the meaning of the terms technology with education and technology of education in educational media and technology.

Moreover, candidates with average scores from 2 to 2.5 marks failed to provide clear meaning of the terms Technology with education and Technology of education while others were able to define only one out of the two terms. For instance one candidate provided correct meanings of technology of education ;*as the application of the knowledge of technology in educational field* and incorrect meaning of technology with education as *the process of learning the means of technology in education field e.g. at school*. Another candidate with average score went further by defining the two terms the same as Technology with education as *the application of the scientific process in teaching and learning*. Technology of education as *the application of the scientific process in teaching and learning*, this definition was correct for Technology of Education.

Unlike the other 313 candidates (38.8%) failed to provide correct answers and scored 0 to 1.5 marks out of 04 as they compared between the two words i.e. They also stated: *technology is a state of having technology as a*

skill e.g. be able to operate machines, to use computers while education refers to someone competent in a certain field. This shows that the candidates lacked competence on the subject matter. Some went further by defining both terms separately and give relationship between the two terms. For instance, one candidate provided the following definitions: *Technology with education refers to the terms which describe the relationship between technology and education and Technology of education refers uses of education in technology development.* This shows that, the candidate had no idea on the concepts technology of education and technology with education. The analysis observed that candidates had poor mastery of the subject matter. Extract 8.1 is a sample of incorrect responses from a candidate who scored a 0 mark.

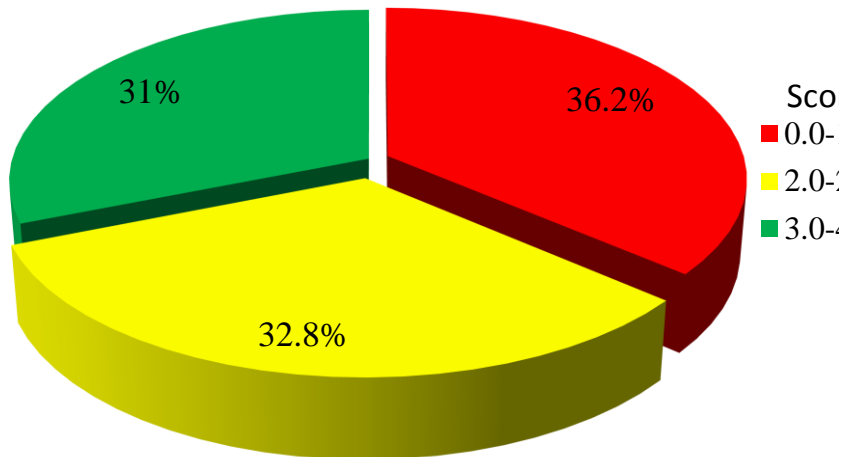
### Extract 8.1

8.	a/ Technology with education - This
	mean that the education obtained
	from the presence of technology
	b/ Technology of education - This
	mean that the knowledge
	obtained under education

**Extract 8.1** a sample of incorrect responses from a candidate who responded the question by guessing due to lack of knowledge.

### 2.1.9 Question 9: Categories of educational media and technology.

In this question candidates were supposed to list reasons for using models as instructional aid. All 806 candidates (100%) answered this question of whom 250 candidates (31%) scored 3 to 4 marks indicating good performance, 264 candidates (32.8%) scored 2 to 2.5 marks indicating average performance and 292 candidates (36.2%) scored 0 to 1.5 marks indicating poor performance. The general performance in this question was average. Figure 10 Illustrates candidates' performances in Question 9.



**Figure 10:** *The Candidates' Performance in Question 9.*

According to data analysis in this question, candidates' performance shows that 250 candidates (31%) scored from 3 to 4 marks. These candidates understood the demand of the question and had adequate knowledge and skills on model concept. The candidates were able to provide correct answers on reasons of using models as instructional aid in their explanations. Examples of their responses were: *bring attention to learners, facilitate easy understanding of the learners, simplify complex context, and simplify complex ideas into concrete*. Responses of other candidates with high marks were: *models making learning more interactive, motivate learners, makes learning from complex to simple, it shows the reality of objects*. The analysis noted that these candidates had good mastery of the subject matter on the model as instructional aid. Extract 9.0 is a sample of correct responses from a candidate who scored full marks.

### Extract 9.0

i	To arouse learners' interest in learning.
ii	To make abstract idea to be concrete.
iii	To motivate learners during learning
iv	To enhance retention or memory among learners

**Extract 9.0** a sample of correct responses from a candidate who was able to provide correct answers due to adequate knowledge and skills on models as instructional aids.

Further analysis noted that, 264 candidates (32.8%) scored average marks in this question. Their scores ranged from 2 to 2.5 marks out of 4 marks, implying that they had partial knowledge and skills on models as an instructional aid. These candidates' mixed-up correct and incorrect answers, some of them were able to provide only two correct responses. For example one candidate with average score wrote: *models motivate learners, models arouse interest to learners, models promote creativity, and models are less expensive*. In this response, only two were correct responses: *models motivate learners, models arouse interest to learners* while the rest were incorrect.

Another candidate with average marks responded as follows: *models make abstract ideas into more concrete, models attracts learners attention, Models are big in size to be seen, Models saves time*. In these responses only two were correct: *models make abstract ideas into more concrete, models attracts learners attention*, Based on these responses the analysis noted that these candidates had partial knowledge and skills on models.

On the other hand, the analysis observed that 292 candidates (36.2%) scored 0 to 1.5 marks out of 4 marks due to incompetence in model concepts. They listed qualities of model instead of reasons for using model as instructional aid. For instance, one candidate provided the qualities of models as: *should be seen in whole class, should align to subject matter, should be clear, and should be attractive* instead of sticking to the reasons of uses of models as instructional aid in teaching and learning process.

Extract 9.1 is a sample of incorrect responses from a candidate who scored a 0 mark.

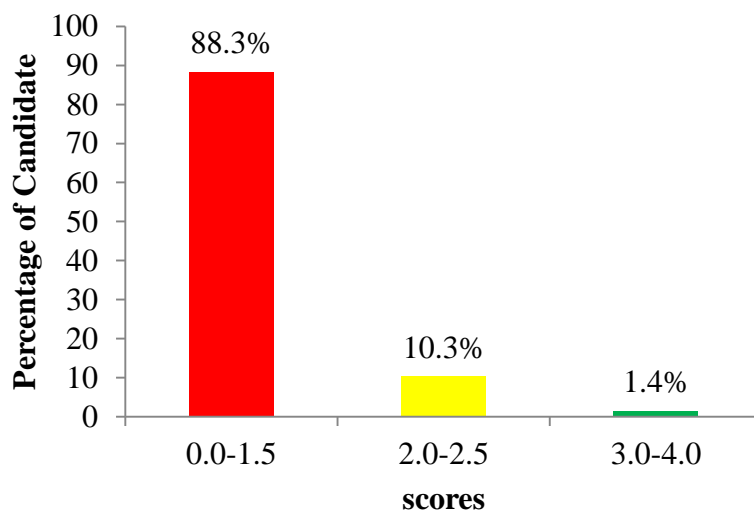
### Extract 9.1

9	i/ should be clear and understood.
	ii/ should be large and scensable to
	all students x
	iii/ should be attractive
	iv/ should be creative.

**Extract 9.1** a sample of incorrect responses from a candidate who listed qualities of models instead reasons of models used as instructional aid.

#### 2.1.10 Question 10: Categories of educational media and technology.

In this question candidates were supposed to explain the strengths of using non-printed educational media for teaching and learning process. Analysis of candidates shows that all 806 candidates (100%) attempted this question whereas 712 candidates (88.3%) scored 0 to 1.5 marks indicating good performance, 83 candidates (10.3%) scored 2 marks indicating average performance and 11 candidates (1.4%) scored 3 to 3.5 marks indicating poor performance. The general candidates' performance in this question was poor. Figure 11 illustrates candidates' performance in Question 10.



**Figure 11:** *The Candidates' Performance in Question 10.*

Analysis showed that majority 712 candidates (88.3%) scored low marks as their scores ranged from 0 to 1.5 marks. These candidates lacked enough knowledge and skills on non- printed educational media thus failed to met the needs of the question. Candidates who scored 0 mark explained incorrect answers on strengths of non-printed educational media as: *helps to convert an error during teaching and learning process by editing, entertain learners*. Other candidates explained functions of educational media instead of strengths of non-printed educational media, e.g. *non-printed media makes teaching and learning more effective. e.g. the use of audio-visual media, non-printed media are more attractive to learners that makes learners to be motivated and interested, non-printed media saves time*, As from these responses, analysis noted that candidates had poor knowledge and skills on non-printed media thus failed to provide correct answers on strengths of non-printed media and technology. Extract 10.0 is a sample of correct responses from a candidate who scored a 0 mark.



### Extract: 10.0

10	a) It is a available
	b) It is used in teaching and learning process
	c) It is hard mastered long period of time
	d) It real image

**Extract 10.0** a sample of incorrect responses from a candidate who provided mixed ideas of educational media and technology instead of strengths of non-printed media.

In the meantime 83 candidates (10.3 %) who scored average marks ranged from 2 to 2.5 marks out of 4 marks partially explained the strengths of non-printed educational media and technology. The analysis made shows that they had partial knowledge and skills on non-printed media. For instance, one candidate with average marks was able to explain as follows: *non-printed media makes the lesson more interactive, they increase memory retention learners, they do not pollute the environment and they facilitate distance learning*. In these responses two of them were correct i.e. *non-printed media makes the lesson more interactive and they increase memory retention learners* while the other two were incorrect. These candidates had partial knowledge and skills on non-printed educational media.

Moreover, further analysis on candidates' performance observed that, very few candidates (1.4%) scored 3 to 3.5 marks out of 4 marks. These candidates seemed to have enough knowledge on non-printed media as they were able to meet the demand of the question. One candidate who scored highest mark in this question managed to provide correct answers like: *non-printed media they are highly interactive to teachers and learners, they increase memory retention learners, they simplify abstract concept into concrete, and they are manipulative to both teachers and learners*. The analysis shows that, candidates had enough knowledge and skills on non-printed media thus provided the correct responses. Extract 10.1 is a sample of correct responses from a candidate who scored high marks.

## Extract 10.1

10.	i) To promote awareness to the learners: students they can be aware of the lesson due to non-printed like computer.
	ii) To promote attentiveness. In this students they can pay full attention to the lesson in the class.
	iii) To promote memorization: In this printed non-student they can retrieve various information in the lesson.
	iv) To promote interest to the learners: In this non-printed student they can enjoy the lesson in class.

**Extract 10.1** a sample of correct responses from a candidate who scored high marks and had knowledge on non-printed media.

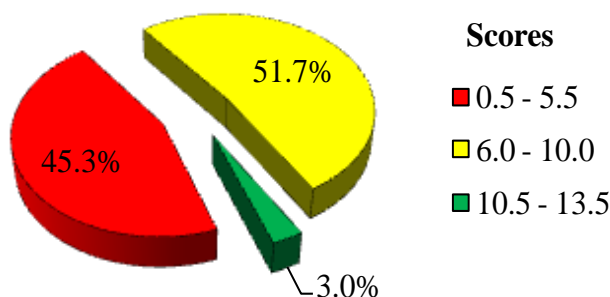
## 2.2 SECTION B: ESSAY QUESTIONS.

This section had six optional essay questions each carried 15 marks distributed as follows: Introduction 1.5 marks, five points each 2.5 marks and Conclusion 1 mark. Candidates had to choose four questions out of the six.

### 2.2.1 Question 11: Characteristics of educational media and technology.

This question required candidates to analyse the characteristics of good real objects which can be used in teaching and learning process. This question was attempted by 565 candidates (70.1%), of whom 17 candidates (3%) scored 10.5 to 13.5 marks indicating good performance, 292 candidates (51.7%) scored 6 to 10 marks indicating average performance and 256 candidates (45.3%) scored 0 to 5.5 marks indicating poor performance. The general performance in this question was average as 54.7% of the

candidates attempted this question scored from 6 to 13.5 marks. Figure 12 illustrates the candidates' performance in Question 11.



**Figure 12:** *The Candidates' Performance in Question 11.*

Data analysis shows that, 17 candidates (3%) who scored from 10.5 to 13.5 marks understood the question and had sufficient knowledge on the real objects. These candidates were able to analyse the characteristics of good real objects which can be used in the teaching and learning process. They presented well organized essay with clear introduction, analysed required number of points which were supported by factual details and vivid examples as well as good conclusions. The variation in their performances was determined by clarity of their responses and the ability to provide relevant examples to support their answers. For example, one candidate provided the following responses on characteristics of real objects: *should consider the age of the learners, should be big in size, should be less expensive (available in local environment), should be relevant to the objectives of the lesson, should be interactive*. Responses from another candidate with high score were: *should be relevant to the subject matter, should be big in size, should be safe (free from poisonous) should be interactive to learners, should be easily accessible*. Such correct responses showed that these candidates had good knowledge and skills on real objects. Extract 11:0 is a sample of correct responses from a candidate who scored high marks.

## Extract 11.0

11	<p>Real objects are tools which are used by the teacher in the process of teaching and learning so as to facilitate the content. Examples of real objects are like plant, animal, soil, there for this real objects should have good characteristics, most of it are as follows:-</p> <ul style="list-style-type: none"><li>Should relate to the content being taught, this will help to facilitate teaching and learning process hence student will get the real situation.</li><li>Should be three dimensional, so this will help the student to understand what the object mean. Since are seen to the whole parts.</li><li>Should be available, a good real object which can facilitate teaching and learning process, be always available to the surrounding. for example using birds, you should use hen since are available compared to other bird like eagle.</li><li>Should not be harmful to the environment, avoid using a real object which can be hurt to the student things that can cause the tension, for example using a snake can be harmful.</li><li>Should be single in size, a good real object which can facilitate teaching and learning should be</li></ul>
----	---

11	Simple in size so as to be
	easy to carry. For example avoid
	using big animal like cow but
	use small one like rat.
	Therefore in order to facilitate
	and to make active teaching
	and learning process facilitator should
	be creative to make sure that the
	real obje are being used and
	friendly to the classroom environment.

**Extract 11:0** a correct response from a candidate who was able to describe the characteristics real objects.

Analysis observed that, the majority 292 candidates (51.7%) who scored 6 to 10 marks had partial understanding of the real objects. Some were able to point out the characteristics of real objects but partially explained. Other candidates mixed-up correct and incorrect points. For instance, candidates provided correct points as; *should be safe to the learners, should be big in size, should be interactive to learners, should be relevant to subject matter* and incorrects point like, *should have good layout, should motivate student and should be simple and clear to students*. Such responses showed that these candidates had partial knowledge and skills on the concept of real objects thus, failed to provide all correct points.

Furthermore, the analysis observed that, 256 candidates (45.3%) scored poorly from 0 to 5.5 marks due to incompetence on the subject matter, poor knowledge of English language and lack of the basic skills on essay writing. Some of the candidates explained the functions of educational media and technology instead of characteristics of real objects in teaching and learning process. For example, one candidate described mixed-up ideas of educational media and technology instead of sticking to characteristics of real objects. The candidate's responses were as follows: *real objects make students creative and innovative, it make students more confident, it enhancing over lasting memory to learners, it develop learners language*. Other candidates with low score wrote weak points without explanation such as: *real objects are easy to understand, they motivate learners, they bring over lasting memory to learners*. The data analysis shows that apart from providing weak points, these candidates also provided incorrect introductions and conclusions, which implied that they had poor mastery of

the content. Extract 11.1 is a sample of wrong responses from a candidate who scored insignificant marks.

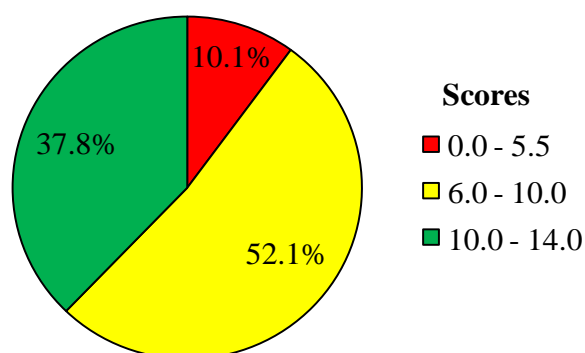
### Extract 11.1

11.	Real objects, are those objects that are not improvised but they are constructed in creatively, that is differ to unreal objects that <del>are</del> improvised with less creativity, <del>these</del> these includes books, magazine, letter etc. the following are the characteristics of good real objects which can be used in teaching and learning process:
	They are attractive, the appearance of real objects are very <del>also</del> attractive compared to unreal objects that have less attractive.
	Real objects are not improvised but they are constructed, hence they <del>have</del> are better compared to unreal objects.
	Real objects like computers are very costly. that means it is difficult to attempt if you not well in financing compared to unreal objects that have no any cost to obtain it.
	Real objects are durable and durable, that means the material designed are very still, hence, it can survive for long period of time.
	Real objects

**Extract 11.1** a sample of incorrect responses from a candidate who explained mixed ideas of educational media and technology instead of characteristics of real objects in teaching and learning process.

### 2.2.2 Question 12: Production of traditional and modern educational media and technology.

This question required candidates to explain qualities of pictures as resources in teaching and learning. The question was attempted by 670 candidates (83.1%), of whom 253 candidates (37.8%) scored 10.5 to 14 marks indicating good performance, 349 candidates (52.1%) scored 6 to 10 marks indicating average performance and 68 candidates (10.1%) scored 0 to 5.5 marks indicating poor performance. According to these data, the general performance in this question was good as 91.5 percent of the candidates attempted this question scored from 6 to 15 marks. Figure 13 illustrates the candidates' performance in Question 12.



**Figure 13:** *The Candidates' Performance in Question 12.*

The analysis observed that, 253 candidates (37.8%) who scored from 10.5 to 14 marks understood the question and had sufficient knowledge on the qualities of pictures as resources in teaching and learning process. They presented well organized essay with clear introduction, correct points which were supported by factual details as well as correct conclusions. The variation in their performances was determined by clarity of their responses and the ability to explain. For example one candidate provided the following responses on qualities of pictures as: *picture should be big in size to be seen clearly, should be clear and understandable to learners, should be relevant to the subject matter, should carry considerable message, and should consider cultural aspects.* Responses of one candidate with high score were: *picture should be large in size, should be clear and well seen, should relate with the subject matter, should have good impression, should consists of necessary information only.* Such correct responses implied that

these candidates had enough knowledge and skills on subject matter. Extract 12:0 is a sample of correct responses from a candidate who scored high marks.

### Extract 12.0

12.	<p>Pictures are photographs taken by means of cameras, phones or computers. Pictures always show the reality of the phenomena. They show the actual thing from the field and they are very useful resource in teaching and learning.</p> <p>The following are the qualities of pictures as resource in teaching and learning:-</p> <p>Should be big enough to be seen or may be many so that they can be distributed to learners. The more the picture is bigger the more students can identify features from it.</p> <p>Should correlate with the contents to be taught. There are different kind of pictures. The picture to be used in the class should merge with the planned content to be taught. If there is no correlation the students will find difficult for them to understand the lesson.</p> <p>Should be attractive, attractive in terms of colours used to print. There are two types of colours used in pictures which are black and white, and coloured pictures. Using coloured pictures makes it to be more attractive hence increases retention to learners.</p> <p>Should be taken to show the real object clearly without any clouds. Clouds are those things which makes the purpose of the picture to be reduced. Therefore there should be no clouds to the picture to work and act as resource in teaching and learning.</p> <p>Should have a title to show what a picture is all about. A picture without assisting information can not deliver the intended information to the learner. So it should be accompanied with the title and any required explanation on it when using it as a resource in teaching and learning.</p>
-----	--



12	Therefore these are the qualities of pictures as
	resources in teaching and learning process. Though there
	are some limitation in preparation and using them
	such as cost of preparation is high compared with
	using of real objects.

**Extract 12.0** a sample of correct responses from a candidate who was able to explain correctly qualities of pictures as resources in teaching and learning.

Similarly, analysis observed that, majority 349 candidates (52.1%) scored average 6 to 10 marks indicated that had partial understanding of the pictures. Some mixed correct and incorrect points in their explanations, Others were able to provide the qualities of pictures but partial, explained. Also other candidates provided less number of points out five required by the question. For example one candidate who provided correct and incorrect responses, the correct responses were: *picture should be large enough to be seen, should be relevant with the subject matter, should contains considerable message*. while incorrect were: *picture should be strong, should be interesting to learners*. The analysis observed that, these candidates had partial knowledge and skills on the picture as instructional aid thus failed to provide correct points on qualities of a picture as demanded by the question.

Further analysis observes that, 68 candidates (10.1%) who scored 0 to 5.5 marks out of 15 marks failed to provide correct answers. Analysis observed that these candidates had poor mastery of the subject matter, poor skills on essay writing and they were poor in English language as they failed to elaborate their point clearly. Most of them provided incorrect responses as: *it should be well captured, motivate learners, attractive, impressive, simplify teaching and learning*, For instance one candidate with low marks wrote; *pictures should be attractive, should have heading, should arouse creativity, and should be framed*. The general responses provided, imply that the candidates lacked knowledge on pictures thus they failed to explain its qualities. Extract 12.1 is a sample of wrong responses from a candidate who scored a 0 mark.

## Extract 12.1

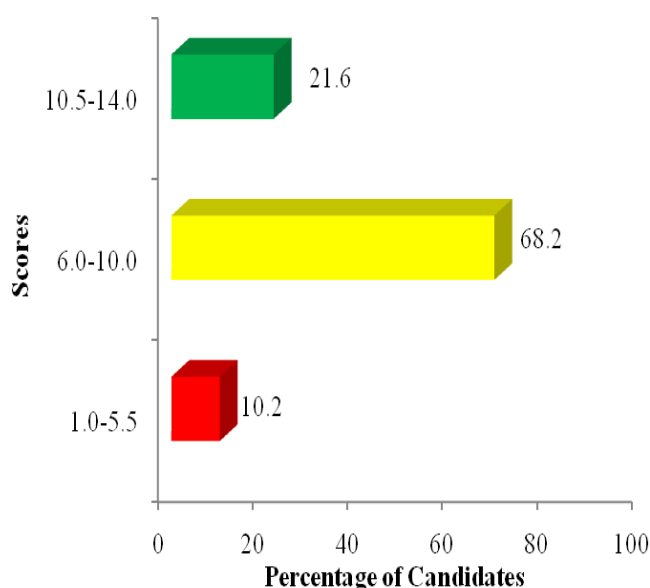
12	<p>Pictures are anything or something which can be taken by a camera or are real object. Picture is among of the resources that were used in teaching and learning process. Picture are resources that are used for many activities it can be for surveying an area or research or when a person travelling from one place to another sometime can use picture to reach to the place. The following were the quality of teaching pictures as resources in teaching and learning as follows;</p> <p>It help to save time for teacher on teaching process. Because when he/she using picture on teaching it save time for him to talk much in the class because picture explained itself concerned with the subject matter that is taught for that time.</p> <p>It help to store memory to the learners means the use of real things in teaching and learning process it help students or learner to remember easily what is taught in the subject concerned. Due to that it can improved performance to the learner because he/she gained knowledge through pictures.</p> <p>It help to solve different problems facing learner in educational matter or in school especially those people who have hearing problems they gain something through pictures.</p> <p>It bring attention to the learner on what is those pictures explained about, pictures in teaching and learning process it may bring attention to the learner especially when those pictures are designed well, coloured and encourage teaching and learning this caused the learner to be attention to what is going on to those picture and reflecting on it what means.</p>
----	--

12.	Quality of picture it help learners to have an interest with subject. Due to the goodness of the pictures resources in teaching and learning bringing interest to the learner on learning a certain subject on which no one can miss the period of a certain subject.
	Finally the use of pictures as resources in teaching and learning processes may help to have a good performance in academic works because it is a good way on which people or learner likes and restore remembering, so they never forget such things.

**Extract 12.1** a sample of wrong responses from a candidate who was unable to explain qualities of pictures as a resource in teaching and learning.

### 2.2.3 Question 13: Types of educational media and technology

This question required candidates to examine limitations of using modern media and technology in Tanzania secondary schools. The question was attempted by 767 candidates (95.1%), of whom 166 candidates (21.6%) scored 10.5 to 14 marks indicating good performance, 523 candidates (68.2%) scored 6 to 10 marks indicating average performance and 78 candidates (10.2%) scored 1 to 5.5 marks indicating poor performance. According to these data, the general performance in this question was good as 95.1% of the candidates who attempted this question scored from 6 to 14 marks. Figure 14 illustrates the candidates' performance in Question 13.



**Figure 14:** *The Candidates' Performance in Question 13.*

Analysis observed that, 116 candidates (21.6%) who scored from 10.5 to 14 marks were able understood the question and had enough knowledge on the modern media and technology. These candidates were able to provide limitations faced by Secondary Schools in Tanzania on uses of modern media and technology indicating that they had good understanding of the topic of Type of Educational Media and Technology. They managed to provide correct introduction and clearly explained limitations facing uses of modern educational media and technology and examples basing on Tanzania such as: *poor supply of electric power, modern educational media are very expensive, operations of modern media required expertise; modern media require more time in planning for its use*. These candidates also managed to write correct conclusion.

Moreover, most of these candidates had good master of English language skills which enabled them to write good arguments. For example, responses of candidate with higher marks were: *modern media are costful, poor supply of electricity, lack of skilled persons to operate*. Such responses imply that, these candidates were able to apply knowledge learnt in the classroom in real life situation. The variation in their performances was determined by clarity of their responses and the ability to provide relevant

examples to support their answers. Extract 13:0 is a sample of correct responses from a candidate who scored high marks.

### Extract 13.0

13.	<p>Modern media, this are media that involve the uses of technology and skills on their user. Example computer and projectors. Modern media can be defined also as the more advanced media.</p> <p>The following are limitation of using modern media and technology in Tanzania secondary schools;</p> <p>Are very expensive in purchasing. Example projectors and computer are very costfull, then in many of Tanzania secondary school fail to use those media due to its expensive</p> <p>Require more knowledge and skills in operate and serve them, example over-head projector in order for the teacher to use he or her must know how to prepare transparent sheet and how to set the machine. Failing to do so they can not be used in Tanzania secondary schools.</p> <p>Poor electricity supply in most of Tanzania secondary schools, most of these modern media use electricity on their function example computers and projector. So, most of Tanzania secondary schools dont use modern media due to lack of electricity supply mostly in village areas.</p> <p>Network problem or shortage of internet services, the communication system of Tanzania is still poor where by there are some places when network can't be connected. For the uses of modern media like the</p>
-----	--

13.	computers in teaching and learning process will be difficult. And this is among the limited factor.
	Low level of technology in Tanzania, Technology is the application of scientific knowledge in create and operate different things in our environments. The level of technology is steel low hence lack of motivation on the uses of modern media in teaching and learning process.
	Therefore, the uses of modern media in teaching and learning have many advantages like simplifying teaching process, motivate learners and expand knowledge and skills to both teachers and students. Hence improve the education sector.

**Extract 13.0** is a sample of correct responses from a candidate who was able to provided limitations of uses modern educational media and technology in Tanzanian Secondary Schools.

Likewise, analysis showed that 495 candidates (68.2%) scored 6 to 10 marks indicated that had partial knowledge on modern educational media and technology. Some mixed-up correct and incorrect points in their explanations. Others were able to describe limitations of uses modern media in Tanzania Secondary Schools but partially explained. Also other candidates provided less number of points out five required by the question. For example, candidates who provided correct and incorrect responses, correct responses were: *modern media are very expensive, they need experties, poor supply of electricit.* Incorrect responses were; *Language problems, viruses destroyed files.* These candidates also managed to write correct introduction and conclusion.

Furthermore, the analysis observed that 78 candidates (10.2%) scored 1 to 5.5 out of 15 marks, were not able to provide correct answers on the

limitations facing uses of modern educational media and technology in Tanzania Secondary Schools. Majority of them provided incorrect points as: *modern media are very delicate and easily to be destroyed, Viruses destroyed files; modern media destroy our culture etc.* The analysis observed that these candidates failed to understand the demand of the question, and had poor knowledge on modern media. Extract 13.1 is a sample of wrong responses from a candidate who scored low marks.

### Extract 13.1

13	<p>Modern media and technology - Refers to recent modern media which facilitate teaching and learning process example. properties, television, computer, CD radio cassette, <del>edu</del> DVD and technology media to facilitate learning process. There are limitations of using modern media in technology in Tanzania secondary school.</p> <p>The media must relates to the subject and content going to be covered, a teacher must make sure he/she uses the media which relates to the subject and topic he is going to teach in order to avoid misunderstanding.</p> <p>The media must be tested, before brought in the <del>class</del> classroom for teaching process. if the media carries experiment a teacher should do that experiment first before taking or bringing it to the student to learn.</p> <p>The must be well seen if it is visual and well in sound if it aural, for the student to understand and remember the information given out for more understanding and answering.</p>
----	---

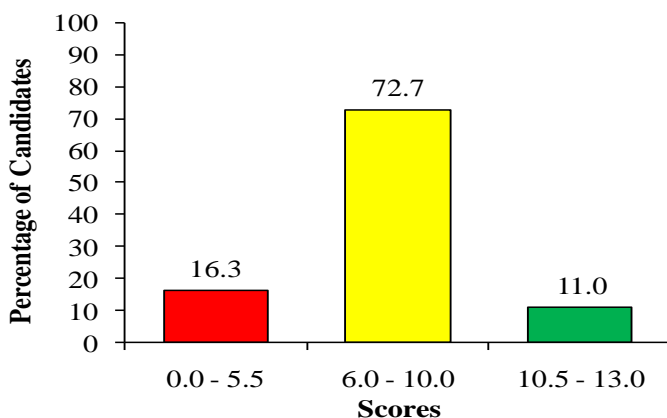
B	of question. If a teacher had used a radio make sure the sound is well in voice tone and voice for the student to get intended knowledge and skills.
	Must be safe, when a teacher uses modern media avoid spraying picture which are immoral to the society because most of secondary students are in adolescent age avoid motivating the stimulus to sex activities example. easily pregnant also being safe avoid using picture which are very frightening to student example use of movie of criminals robbing student will make noise and cause underpline to the classroom.
	Media must be sprayed on screen or place with enough light; for every student to see them very well even back sitting student in the classroom to the the <sup>image</sup> object, or document object very well.
	Generally the modern media should be update time after time in order to avoid errors and poor channels channel poor getting of information to the intended students.

**Extract 13.1** a sample of incorrect responses from a candidate who describe qualities of education media and technology instead of limitations facing uses of modern educational media and technology.



## 2.2.4 Question 14: Categories of educational media and technology

This question required candidates to support the statement that “Printed media in varied forms will continue to be fundamental for effective teaching and learning in Secondary Schools”. This question was attempted by 508 candidates (63%), of whom 56 candidates (11%) scored 10.5 to 13 marks indicating good performance, 369 candidates (72.7%) scored 6 to 10 marks indicating average performance and 83 candidates (16.3%) scored 0 to 5.5 marks indicating poor performance. According to these data, the general performance in this question was good as 83.7% of the candidates who attempted this question scored from 6 to 13 marks. Figure 15 summarised candidates' performance in Question 14.



**Figure 15:** *The Candidates' Performance in Question 14.*

Further analysis shows that, 56 candidates (11%) who scored from 10.5 to 13 marks had sufficient knowledge of the subject matter. These candidates provided relevant introduction, required number of points with relatively adequate explanations. The accuracy of their responses however differed; those who scored 13 marks were more conversant with printed media than the rest. They provided correct points as: *they are more familiar to teachers and learners, they are simple and available, encourage individual learning, they are portable easy to carry from one place to another, they are less expensive; they durable can stayed for a long time etc.* For instance, candidates with relatively high marks wrote: *printed media are easily available, are durable can stay for a long time, promote interaction between the reader and text they are portable easy to carry from one place to another, they are less cost, they encourage individual learning.* The analysis observed that these candidates had enough knowledge on printed

media. However, the degree of clarity of responses caused some of them to score more marks than others. Extract 14.0 is a sample of correct responses from a candidate who scored higher marks.

#### Extract 14.0

14	<p>Printed media refers to all materials and resources that are in print form or written form. These resources are like Text books, Journals, maps, Newspaper, pamphlets and dictionaries. Printed media is true that will continue to be fundamental for effective teaching and learning in secondary schools, due to the following advantages;</p> <p>They provide more detailed information about a content of a subject matter. Printed media contains a content that is detailed and teacher and students can use them to extract and gain more detailed information about a subject matter.</p> <p>Easy to Store and maintain, printed media are easy to store them and can be maintained for long time. Printed media can be stored for several years than other media. Therefore they are good to keep information for long period of time. For example, books, journals and newspapers can be stored for several years to be used by another generation. For example till today we are using books written by J. K Nyerere.</p> <p>Availability, Printed media are fundamental in teaching and learning in secondary schools because they are available in large number and forms that easy to get them. Several shops sell books, newspapers and journals that they are cheap than</p>
----	--

	Other forms of media.
	They are interactive to both teachers and students. Printed media are easy to be used by teachers and students and they are portable to be carried in bags and pockets. It does not require high skills to the users to use them. Even student can use them with no guide of their teachers.
	They are helpful in making lesson notes for teaching a lesson. Printed media are good and useful to a teacher when preparing for the lesson have to prepare lesson notes that will be distributed to students. This process of collecting and making lesson notes is easy by using printed medias like textbooks and supplementary materials.
	Printed media is seem to be as a mother form of media because is the form of media that is easy to be used by many people and are more available than other forms of media.

**Extract 14.0** a sample of correct responses from a candidate who was able to describe printed media as fundamental in effective teaching and learning in Secondary Schools.

Furthermore, 369 candidates ( 72.7%) scored average in this question, their scores ranged from 6 to 10 marks gave required points but provided insufficient explanations to justify their arguments. They also repeated some of the points which denied them higher scores. Others wrote correct and incorrect points in their explanation. For example, one candidate in this category who mixed-up correct and incorrect points wrote the following responses; correct responses: *easy to access information, they are less*

*expensive, they are simple and easy to carry while incorrect responses was: they use simple language, it is easy to correct errors.* Analysis observed that this candidate had partial knowledge on printed media thus failed to provide correct points.

Furthermore, the analysis observed that 83 candidates (16.3%) scored 0 to 5.5 out of 15 marks, were not able to provide correct answers on the effectiveness of printed media in teaching and learning in secondary schools. The analysis shows that, these candidates lacked basic knowledge and skills on printed media. Majority of them in this category provided related general ideas on modern media *as: they do not require electric power, they do require network system, and they use simple language.* Other candidates misinterpreted the question as they provided their responses as follows: *motivate learners during teaching and learning, create long term memory and, are simple medium to capture information media* instead of effectiveness of printed media. These candidates failed to understand the demand of the question. Extract 14.1 is a sample of wrong responses from a candidate who scored low marks.

## Extract 14.1

14. Printed Media, Refer to those media which are found in printed form, for example pamphlets, magazines, newspapers, books, and drawings. Printed media in various forms will continue to be fundamental for effective teaching and learning in secondary schools due to the following views.

Decrease thinking capacity among the students and teacher that know every thing must be in printed forms that make printed media to affect teaching and learning process in secondary school, that learner do not think on how they can get information from another media like non-printed media it still on-looking only in printed media so printed media must be in controlled with the combination of printed and non-printed media to be used in teaching and learning process.

It is time consuming when encourage on looking for the information for example when you find information from magazines you must go to the magazine stand in order to buy those magazines you want to get information required. due to that printed media can affect teaching and learning in secondary school.

Some times it is cost, that printed media need to be bought in order to get the information for example book, pamphlets and drawings some time involve money to be buy in order to be accept for your requirement you need to be bought that can be controlled from the either using non-printed media in order to improve teaching and learning process.

Decrease knowledge and skills among the learner

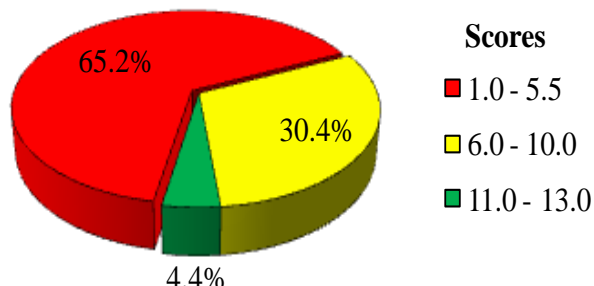
14.	and Teacher that Teacher and Learner do not have knowledge and Skill on how you can acquire another way of Improving the teaching and learning process that need every thing to be explained on printed media from one to other that affect performance on the Students to be occurred.
	It need high techniques for explanation, that can affect the teaching and learning material for example when using magazine and newspaper on the process of teaching make more explanation to the learner in order to understand the lesson being involved.
	All in all are the view that Printed media is varied forms will continue to be fundamental for effective teaching and learning in Secondary school that face to the poor performance of learners on their learning and that must be improved on making the two way chart to use printed and non-printed media on the process of teaching and learning.

**Extract 14.1** a sample of wrong responses from a candidate who provided functions of educational media instead of effectiveness of printed media in teaching and learning.

### 2.2.5 Question 15: Production of traditional and modern educational media and technology.

This question required candidates to explain steps to be followed by teachers in constructing educational media and technology. The question was attempted by 181 candidates (22.5%), of whom 8 candidates (4.4 %) scored 11 to 13 marks indicating good performance, 55 candidates (30.4%) scored 6 to 10 marks indicating average performance and 118 candidates (65.2%) scored 1 to 5.5 marks indicating poor performance. According to

these data, the general performance in this question was poor as 34.4 percent of the candidates attempted this question scored from 6 to 13 marks. Figure 16 illustrates the candidates' performance in Question 15.



**Figure 16:** *The Candidates' Performance in Question 15.*

Further analysis shows that, 8 candidates (4.4 %) that scored from 11 to 13 marks were able to understand the question and had sufficient knowledge on construction of educational media and technology. These candidates managed to provide relevant introduction and clearly explained steps in constructing educational media and technology as the question demanded implied that they had good understanding of the subject matter. Some of the responses of candidates who scored higher marks were: first step *technique preparation*, second step *decision making*, third step *preparation of materials*, forth step *production* fifth step *amendment of media made*, *testing of media before used*. These candidates also wrote relevant conclusion.

Moreover, most of these candidates had good English language skills which enable them have a good flow of their arguments. Such responses implied that, these candidates had enough knowledge and skills on construction of educational media and technology. The difference in their performances was determined by clarity of their responses and the ability to provide relevant examples to support their answers. Extract 13:0 is a sample of correct responses from a candidate who scored high marks.

15. Construction, is the process of making things which is real. for example when you construct a house you have to make sure that you make a real house. The steps to be followed by the teachers in constructing an educational media and technology are as follows:-

Analyse the educational media and technology needed, the first step in construct you have to know what thing you are going to construct it:-

Collect the materials needed, after analysing the Educational media and technology you are going to construct you have the to collect the materials needed for the construction.

Construct the educational, media and technology, after having the materials need is now you have to construct the educational media and technology that you have been analysed at the first stage or steps of constructing, And you have to construct the real thing.



15.	Test the educational, media and technology, after finishing to construct an educational media and technology you have to test the constructed educational media and technology before using so as to know if it is ready to be used in the class or not.
	Use of constructed educational media and technology, this is the final step that the educational media and technology have been constructed and is ready to be used in the class in the process of teaching and learning.
	Generally the one of the teacher's responsibilities is to construct an educational media and technology by that will make the teacher to perform well on his or her activities of teaching and learning.

**Extract 15.0** a sample of correct responses from a candidate who was able to explain steps of constructing educational media and technology.

Analysis observed that, 55 candidates (30.4 %) scored average marks ranged from 6 to 10 marks. These candidates had partial knowledge on construction of educational media and technology they provided corrects steps in construction but with partial explanation as follows: step 1; *preparation of techniques that will be used in the construction*, Step 2; *collection of material needed in the construction*, Step 3; *construction of a particular media*, Step 4; *test of educational media*, Step 5; *modification of educational media and technology and uses of educational media and technology*. Further analysis shows these candidates had partial skills in essay writing, some minor cases in English language terms which make them failed to make clear elaboration of points.

Similarly, 118 candidates (65.2%) scored poor marks their scores ranged from 1 to 5.5 marks. These candidates probably were confused by the word "construct" thus responded to the question by giving general ideas in educational media and technology. Others provided characteristics and functions of educational media and technology instead of steps of constructing educational media. Their responses were as follows: *identify nature of the learners, nature of the class, time for construct the media, age of the learners, correlation with the content, must be relevant to the subject matter, must consider the size of the class*. For instance, one candidate in this category listed the following steps for construction of media: *look classroom environment, look the nature of the learners, availability of materials, construct the relevant media, test the media before used, editing media*. Analysis showed that, these candidates failed to understand the demand of the question and had no knowledge of the content. They also wrote very poor introductions and conclusions in their essays. Extract 15.1 is a sample of wrong responses from a candidate who scored poor marks.

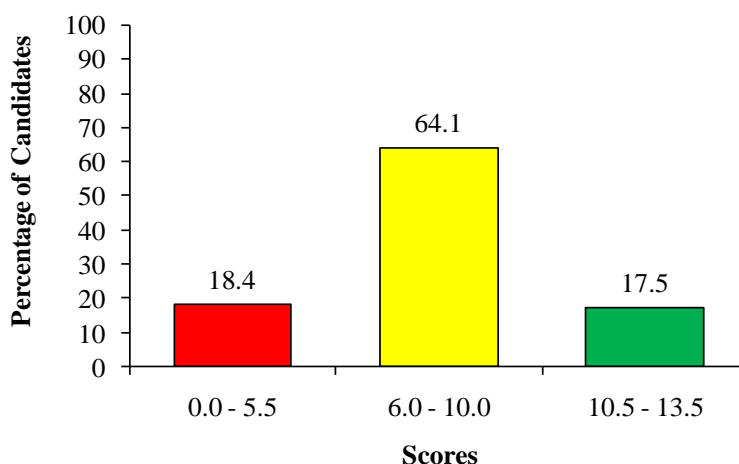
### Extract 15.1

15.	Construction of educational media and technology is the process of creating devices or instruments which can be used in simplifying the teaching and learning process. The followings are steps to be followed in constructing of media.
	Knowledge of the level of learners. A teacher must know the level of the learners so as to construct an appropriate device. If level of learners is not considered, it will result into difficulties of learners to understand.
	Know the time to use it. Also another step to follow is by having knowledge of when will be right time to use the designed material.
	Relevance to subject. A teacher must know the relevance of constructed material to the content he/she taught. This is to avoid confusion to arise in process of presenting it.
	Must have all necessary tools. Tools for Writing, tools for drawings, for cutting, for joining, all these must be present when a teacher is performing task. This will <sup>make</sup> the task to be executed well and accurately.
	If need arise, then the students and teacher should collaborate/cooperate in constructing the media. This will help student to be familiar with the media constructed when presented in class.

**Extract 15.1** a sample of wrong responses from a candidate who provided characteristics of education media instead of steps of constructing educational media.

## 2.2.6 Question 16: Care and maintenance of educational media and technology.

This question required candidates to describe the importance of caring and maintaining educational media and technology. This question was attempted by 532 candidates (66%), of whom 93 candidates (17.5 %) scored 10.5 to 13.5 marks indicating good performance, 341 candidates (64.1%) scored 6 to 10 marks indicating average performance and 98 candidates (18.4 %) scored 0 to 5.5 marks indicating poor performance. According to these data, the general performance in this question was good as (81.6%) of the candidates attempted this question scored from 6 to 13.5 marks; Figure 17 illustrates the candidates' performance in Question 16.



**Figure 17:** *The Candidates' Performance in Question 16.*

The analysis shows that, 93 candidates (17.5 %) who scored from 10.5 to 13.5 marks understood the question and had sufficient knowledge on topic of care and maintaining educational media and technology. These candidates were able to describe the importance of care and maintaining educational media and technology which can be used in the teaching and learning process. They presented well organized essay, with clear introduction, required number of points as well as correct conclusion. The variation in their performances was determined by clarity of their responses and the ability to provide correct explanation. For example one candidate provided importance of care and maintaining educational media and technology as: *care and maintenance increases life span of the media, ensures safety to teachers and learners, it reduce the unnecessary cost of*

buying the new one, it makes media more efficiency and productive, it maintaining originality of the media. Such correct responses showed that these candidates had good knowledge and skills on care and maintenance of educational media and technology. Extract 16.0 is a sample of correct responses from a candidate who scored high marks.

#### Extract 16.0

16	<p>Caring is the process of protecting education media from destruction. Maintenance is the process of making education Media to remain with its quality. Maintenance and caring educational media and technology is very important. due to the following reasons</p> <p>it reduce the cost of buying new education media, when educational media are maintained it help to reduce unnecessary cost of buying new media</p> <p>Help to protect the quality of educational media, when educational media and technology are maintained it will continuous to work with its quality for long period of time. example when projector is maintained it continuous to display material during presentation with in well quality</p> <p>Help to make constant availability of educational media, through storing the educational of media it lead availability of educational material in school at any time. Example it can make constant availability of Teaching aid in school.</p> <p>Help to increase effectiveness performance of the media, when media are maintained and stored well it can increase its operation. example when a projector are cleaned well it increase the quality of displaying the material during the presentation in classroom.</p> <p>it help to reduce the environmental pollution. when the media are protected it can stay for long period of time. example teaching aid made from local material so it reduce the number of material being dumped which cause pollution to the environment</p> <p>Generally, when educational media and technology are maintained it can simplify teaching and learning process in school.</p>
----	--

**Extract 16.0** is a sample of correct responses from a candidate who was able to describe the importance of care and maintenance of educational media.

Similarly, analysis observed that, majority 341 candidates (64.1%) scored average in this question; their scores ranged from 6 to 10 marks out of 15 marks, indicated that had average understanding of the tested concept. Some were able to provide the importance of care and maintenance of educational media but partially explained, however others mixed up correct and incorrect points in their explanations. For instance one candidate mixed up the correct and incorrect points as follows, correct points: *care and maintenance reduces unnecessary cost of buying another new media, it makes media more durable, it serves media from total destruction or damaged*. Incorrect points as: *helps teachers to practically, it reduces scarcity of media*. Analysis shows that, these candidates had partial knowledge on care and maintenance.

Comparably, 98 candidates (18.4%) scored poorly from 0 to 5.5 marks due to incompetence of the subject content, poor knowledge in English language and they lacked basic skills on essay writing. Analysis observed that, most of these candidates explained the functions of educational media and technology instead of importance of care and maintenance of educational media as: *makes the study more practically, helps to cover contents in time, it makes availability of media, helps to maintain quality of environment, they motivate learners, they bring over lasting memory to learners, make students creative and innovative, it makes students more confident etc*. The data analysis shows that apart from providing weak points, these candidates also provided incorrect introduction and conclusion which implied that they had poor mastery of the content. Extract 16.1 is a sample of wrong responses from a candidate who scored poor marks.

## Extract 16.1

16	<p>Importance of caring and maintaining educational media and technology</p> <p>Educational media is the process of sharing information between teachers and learners with the source of materials.</p> <p>Technology is the scientific application for improve human development.</p> <p>The following are importance of caring and maintaining education media and technology</p> <p>It motivate learners due to this point caring and maintaining educational media and technology led to motivate learners in they are study because teachers can use different of motivation which can make learners to get motivation also through caring and maintaining educational media and technology motivate learners</p> <p>It help to solve problem or special difficult which faced learners this will help students to study hard because the problem which face d its going to be solved by different ways as we know through caring and maintaining educational media and technology problems which faced learners or students should solve</p> <p>It create cooperation due to this point during caring and maintaining educational media it help the teachers and the learners to cooperate in the process of learning through this situation it can led the students to have good performance because of cooperation which they give to one another also cooperation make learners to have good discipline because of look to one another</p>
----	---

16	<p>It help in decision making .due to this point during caring and maintaining educational media and technology it help a person to have a decision making which it can help a person or students to plan different things which it teach to his / her place through decision making students can decide to do things which can make him/her to have good result at the end , example during personal study</p> <p>It create confidence , due to this point through caring and maintaining a students or learners can gain or have confidence . time of present different of things which are found in study example time of present group work this situation it can help students to have confidence of present the material in front of the classroom</p> <p>Generally due to all point the process of caring and maintaining educational media and technology it help to create long term memory during learning process because pay attention to understand also it save time during learning process .</p>
----	--

**Extract 16.1** a sample of incorrect responses from a candidate who failed to describe importance of caring and maintenance of educational media and technology.



### **3.0 PERFORMANCE OF CANDIDATES IN EACH TOPIC**

The Educational Media and Technology examination comprised of eight topics into which the examination questions were set. The analysis of candidates performance in each topic shows that, candidates had good performance in the following topics; Types of *Educational Media and Technology* (89.8%), *Care and Maintenance of Educational Media and Technology* (84.6%), *Educational Media and Technology and Environment* (83.1%), *Function of Educational Media and Technology* (76.4%), *Characteristics of Educational Media and Technology* (54.7%), *Categories of Educational Media and Technology* (53.1%) and *Production of Traditional and Modern Educational Media and Technology*. (53.0%) See appendix A.

### **4.0 CONCLUSION**

Statistical data analysis for each question shows that the candidates' overall performance in Educational Media and Technology subject for Diploma in Secondary Education Examination (DSEE) 2018 was good. The analysis shows that the candidates' good performance was caused by the ability of candidates to identify the demand of the question and candidates' sufficient knowledge on the subject matter. However the candidates with poor performance revealed the lack of these factors.

### **5.0 RECOMMENDATIONS:**

- (i) Tutors should guide students on how to approach examination questions especially on the key words used in examination e.g. define, examine, explain, analyze, identify, elaborate, outline, elaborate etc. the candidate should be familiar with key words used in examination.
- (ii) The ministry of Education, Science and Technology in collaboration with TIE should prepare and provide Module, text books and reference books so as to assist ongoing students to master the contents of the subject and maintain standards.
- (iii) Colleges to have well quipped resources' rooms for students and tutors to practice/ prepare aids for teaching and learning. This will help learners/student to know various education media and how to use them in classroom lessons.

## Appendix A

### PERFORMANCE OF CANDIDATES TOPIC WISE DSEE 2018

S/N	Topic Examined	DSEE 2018		% Average Performance per Topic	Remarks
		Question number	Percentage of the Candidates who Scored an Average of 40 Percent and above		
1	Types of Educational Media and Technology	13	89.8	89.8	Good
2	Care and Maintenance of Educational Media and Technology	6	87.6	84.6	Good
		16	81.6		
3	Educational Media and Technology and Environment	2	83.1	83.1	Good
4	Function of Educational Media and Technology	1	76.4	76.4	Good
5	Characteristics of Educational Media and Technology	11	54.7	54.7	Average
	Production of Traditional and Modern Educational Media and Technology	4	67	54.5	Average
		7	26.1		
		12	89.9		
		15	34.8		
6	Categories of Educational Media and Technology	9	63.8	53.1	Average
		10	11.7		
		14	83.7		
8	Principles of	3	16.9	46.3	Average

S/N	Topic Examined	DSEE 2018		% Average Performance per Topic	Remarks
		Question number	Percentage of the Candidates who Scored an Average of 40 Percent and above		
	Teaching and Learning in Educational Media Technology	5	60.8		
		8	61.2		
	General Performance			67.8	Average

From the Appendix A, the overall performance in all topics was average with the average of 67.8%. The topic of *Types of Educational Media and Technology* was the highly performed followed by topics of *Care and Maintenance of Educational Media and Technology*, *Educational Media and Technology and Environment*, *Characteristics of Educational Media and Technology*, *Production of Traditional and Modern Educational Media and Technology*, *Production of Traditional and Modern Educational Media and Technology* and the last was *Principles of Teaching and Learning in Educational Media Technology*.

