

RADIO, TELEVISION AND ELECTRONICS WORKS

EXAMINATION SCHEME

There will be three papers, Papers 1, 2 and 3, all of which must be taken. Papers 1 and 2 shall be a composite paper to be taken at one sitting.

PAPER 1: will consist of forty multiple-choice objective questions, all of which are to be answered in 45 minutes for 40 marks.

PAPER 2: will consist of six short-structured questions. Candidates will be required to answer any four in 1 hour for 60 marks.

PAPER 3: will be a practical test of 2 hour duration. It will consist of three skill-based questions out of which candidates will answer two for 90 marks.

A list of materials for the test shall be made available to schools not less than two weeks before the paper is taken for materials procurement and relevant preparations.

Alternative to Practical Work:

The Council may consider testing candidates' ability in practical work as prescribed in the syllabus in the event that the materials for the actual practical test cannot be acquired. For this alternative test, there will be two compulsory questions to be answered in 2 hours for 100 marks.

Industrial Attachment:

This should be done by the candidates during the long vacation between their SS II and SS III course. It will be supervised and assessed by their subject teachers. It will carry 10 marks.

SAMPLE QUESTIONS

PAPER 1 - OBJECTIVE

1. Which of the following is *not* a source of hazard in the workshop?
 - A. Exposed live wire
 - B. Wrong handling of tools
 - C. Horseplay in the workshop
 - D. Dry floor
2. Which of the following effects is utilized in a moving-coil instrument?
 - A. Magnetic effect

- B. Heating effect
 - C. Chemical effect
 - D. Electrostatic effect
3. The emission of electrons from the surface of a metal due to the application of heat energy is known as
- A. photoelectric emission.
 - B. field emission.
 - C. thermionic emission.
 - D. secondary emission.
4. Which of the following is **not** a property of an electronic circuit?
- A. It must have a source of e.m.f.
 - B. It must have resistance
 - C. The current must flow in a specific direction
 - D. The power must be proportional to the voltage
5. A transducer is any device which
- A. is used in electronic equipment.
 - B. is self-generating.
 - C. converts energy in one form into another.
 - D. senses the presence of a physically quantity.
6. Which of the following is **not** a good customer relations strategy?
- A. Begging people to like your product
 - B. Daily appearance in office
 - C. Understanding customer psychology
 - D. Telephone courtesy

PAPER 2 - ESSAY

- 1.(a) Define the following terms in relation to workshop safety:
- (i) safety;
 - (ii) accident.
- (b) List **five** sources of hazards in a Radio and Television Electronics Works workshop.
- 2.(a) Define the following terms:
- (i) conductor;
 - (ii) insulator;
 - (iii) semiconductor.
- (a) List **two** examples of substances that can be described by each of the terms in 2(a).

PAPER 3 – ALTERNATIVE TO PRACTICAL

The table below shows defects in a television set and their solutions. Use it to answer the questions that follow:

S/N	OBSERVABLE SYMPTOM	ADDITIONAL SYMPTOM	PROBABLE DEFECTS	REASON FOR DEFECT	SOLUTION
1.	Curved raster (Neck shadow)	Picture Ok Sound Ok			
2.	Diagonal raster				Turn the yoke to get the correct raster
3.	Picture upside down			Mis-positioning of yoke	
4.	EHT arcing				
5.	Lateral Inverted picture	Raster sound O.K.			

- (a) Copy the table and fill in the missing information.
- (b) List **two** tools required to carry out each of the repairs indicated in the table.
- (c) Sketch each of the following electronic hand tools:
 - (i) star-head screw driver;
 - (ii) soldering iron.

