

SUMMARY OF PRESENTATIONS ON PHYSICS

PHYSICS 535/1 (Theory paper).

The paper is to have two sections A and B with two parts in section B.

Section A is compulsory while section B has four selective items where a candidate selects two choosing only one from each part.

Paper Composition

Section A

- Earth, Stars, galaxies and digital communication
- Light and Waves
- Atomic and Nuclear Physics.

SECTION B

Part 1 - Heat and Mechanics (2 items)

Part 2 - Electricity and Magnetism (2 items)

- There are only two bases of assessment in this theory assessment i.e. the essay (Identification/theory) where a learner identifies, explains and illustrates his/her learning achievements in physics.

The second base is Mathematical Computation (calculation) where a learner is required to use scenarios to make some useful calculation for making judgement on the problem to be solved in the scenario. All these calculation lead to judgement and decision which must clearly be made at the end of the calculation.

For example - Determine whether the driver would be arrested for violating speed limit on a road. ~~shall~~

- Determine if a certain amount of money can cater for a monthly electricity bill of a home/Institution/Company basing on the described usage
- Determine if a transformer will serve a specified task. etc.

All these require a candidate to first calculate before a decision is made with judgement.

NB: All tasks except the earth, stars, galaxies and digital communication will be assessed basing on the two bases - therefore a candidate must ensure that he makes some -

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useful calculation on every item in the assessment and uses the calculation to make a meaningful judgement (conclusion).

Scores

- For each item, the theory scores 03 while the calculation with decision scores 02.

Theory

If y is the total number of scoring points

$$\frac{2}{3} \text{ of } y \text{ and above} = 03$$

$$\frac{1}{3} \text{ of } y \text{ upto } \frac{2}{3} \text{ of } y = 02$$

$$1 \text{ upto } \frac{2}{3} \text{ of } y = 01$$

$$0 = 00$$

Calculation:

If m is the total number of scoring points.

$$\frac{2}{3} \text{ of } m = 02$$

$$1 \text{ upto } \frac{2}{3} \text{ of } m = 01$$

$$0 = 00$$

- All the items will focus on the last four levels of the Bloom's taxonomy i.e. Application, Analysis, Evaluation and Creation. Tasks testing only concept knowledge and concept understanding will not be part.
- There will be no direct instruction to the candidate i.e. tasks asking learners to define, state, mention, calculate, find are not accepted.
- All tasks have independent scores i.e. a learner can score fully on calculation but not any on theory or vice versa.
- No fixed Marks allocation for the items but the scores will be obtained from the agreed marking points per ~~question~~ item.

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- All the scoring points will be indicated by full tick. No more halves in marking.
- The list of constants is not part of the ~~cat~~ instructions. Constants for each item will be given in Hints at the end of every item scenario.
- When giving responses, candidates are not required to make salutations, greetings and self introduction. These may be considered in activities of Integration.

PHYSICS 535/2,3 (Practicals).