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xamination Revision Checklist – FGA (DBE) PHYSICS

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| **Date: School Board:**  |
| **Title / Version:**  | **Course Code:** | **PHS-5061-2:** Kinematics and Geometric Optics |
| **CONCEPTS AND TECHNIQUES** |
| **General Concepts** | **Compulsory Concepts** | **Theory Part** | **Practical Part** |
| **Evaluation ofCompetencies** | **Evaluation ofExplicitKnowledge** |
| **Kinematics** | Reference system |  |  |  |
| Uniform rectilinear motion |  |  |  |
| Uniformly accelerated rectilinear motion |  |  |  |
| Motion of projectiles |  |  |  |
| **Geometric Optics** | Snell’s Law |  |  |  |
| Images |  |  |  |
| **Categories ofTechniques** | **Techniques** | **Practical Part****Evaluation ofCompetencies** |
| **Laboratory Work** | Safely using laboratory materials and equipment |  |
| Using observational instruments |  |
| **Measurement** | Checking the reliability, accuracy and sensitivity of measuring instruments |  |
| Interpreting measurement results (significant figures, measurement errors) |  |

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| **CONCEPTS AND TECHNIQUES *(Cont.)*** |
| The two general concepts as well as all of the compulsory concepts are evaluated throughout the entire examination which respects the requirements of the DED. |  |
| Evaluation of competencies: |  |
| * The two general concepts as well as the two categories of techniques are evaluated.
 |
| * For the two general concepts a representative sample of the compulsory concepts is evaluated.
 |  |
| * All techniques are evaluated except the use of instruments of observation, which is only suggested.
 |  |
| Evaluation of explicit knowledge:* The two general concepts and all the compulsory concepts that were not selected during the evaluation of the competencies are evaluated.
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| **THEORY PART** |
| **Global Appreciation** | **Satisfactory** | **RevisionRequired** | **Comments and Suggestions** |
| **GUIDE** |
| General and compulsory concepts are clearly identified. |  |  |  |
| The number of general concepts evaluated respects the requirements of the DED. |  |  |
| For each general concept, representative samples of the compulsory concepts are evaluated. |  |  |
| Provided materials: |  |
| * Adult’s Booklet
 |  |  |
| * Correction Key
 |  |  |
| * Guide
 |  |  |
| * Evaluation Booklet
 |  |  |
| Authorized materials respect the requirements of the DED. |  |  |
| Duration of the examination is 2 hours. |  |  |
| **ADULT’S BOOKLET – EVALUATION OF COMPETENCIES SECTION** |
| 1 to 3 Scenarios with 4-7 tasks (at least one task per scenario). |  |  |  |
| The scenarios are open-ended and present a problem to be solved as well as an opinion, comparison, or choice to be made. |  |  |
| Tasks are complex; they are related to the context of the scenario. |  |  |

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| **THEORY PART *(Cont.)*** |
| **Global Appreciation** | **Satisfactory** | **RevisionRequired** | **Comments and Suggestions** |
| **ADULT’S BOOKLET – EVALUATION OF COMPETENCIES SECTION *(Cont.)*** |
| Tasks are complex, incorporating the following characteristics: |  |  |
| * Mobilize several concepts
 |  |  |
| * Permit several solutions
 |  |  |
| * Use judgment, reasoning or analysis
 |  |  |
| * Require an opinion or a choice to be made
 |  |  |
| * Propose a problem to be solved
 |  |  |
| * Mobilize the 3 evaluation criteria
 |  |  |
| **ADULT’S BOOKLET – EVALUATION OF EXPLICIT KNOWLEDGE SECTION** |
| The booklet comprises 3 to 8 questions. |  |  |  |
| Questions contain minimal or no context. |  |  |
| The questions are varied in form and relate to each of the first three levels of cognitive skill (Knowing, Understanding and Applying). |  |  |
| Concepts not assessed in the evaluation of competencies section are taken into account. |  |  |

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| **THEORY PART *(Cont.)*** |
| **Global Appreciation** | **Satisfactory** | **RevisionRequired** | **Comments and Suggestions** |
| **ADULT’S BOOKLET GENERAL** |
| The visual aspect is appropriate (layout, illustrations, spaces for answers, etc.). |  |  |  |
| The methods of representation are varied (graphs, tables, texts, equations, diagrams, etc.). |  |  |
| The level of difficulty is appropriate. |  |  |
| Scenarios are free of stereotypes, discriminations or offensive elements. |  |  |
| Content is **original** (not based on educational accounts or other materials) and is mathematically and scientifically sound. |  |  |
| The appendices (tables, formulas and quantities) are complete and conform to the DED. |  |  |
| Copyright:  |  |
| * Rights have been obtained, with supporting documents clearly indicating sources (if necessary).
 |  |  |
| * The images and texts are copyright-free; the source of each image and text is clearly indicated underneath it.
 |  |  |
| * In the case of photos or drawings made by the authors of the exam, a letter granting copyright permission to GRICS is attached to the examination.
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| **THEORY PART *(Cont.)*** |
| **Global Appreciation** | **Satisfactory** | **RevisionRequired** | **Comments and Suggestions** |
| **CORRECTION KEY** |
| Examples of appropriate responses are provided for all tasks and questions. |  |  |  |
| Marking scales are clear. |  |  |
| A total of 20 marks are allotted for the explicit knowledge section. |  |  |
| **EVALUATION BOOKLET** |
| The checklist contains observable actions for each criterion. |  |  |  |
| Each observable action connects with the concepts evaluated and respects the elements of the evaluation criteria. |  |  |
| The observable actions can be evaluated using the Criterion-Referenced Rubrics. |  |  |
| A total of 40 marks are allotted for the evaluation of competencies section. |  |  |
| **CONCORDANCE OF BOOKLETS** |
| There is a concordance between all the documents: *Guide, Adult’s Booklet, Correction Key, and Evaluation Booklet.* |  |  |  |

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| **PRATICAL PART** |
| **Global Appreciation** | **Satisfactory** | **RevisionRequired** | **Comments and Suggestions** |
| **GUIDE** |
| The general and compulsory concepts evaluated as well as the category of techniques and the techniques are clearly identified. |  |  |  |
| The number of categories of techniques and the techniques evaluated respects the requirements of the DED. |  |  |
| The general and compulsory concepts evaluated are coordinated with the theory section. |  |  |
| Provided materials: |  |
| * Adult’s Booklet
 |  |  |
| * Correction Key
 |  |  |
| * Guide
 |  |  |
| * Evaluation Booklet
 |  |  |
| Duration of the examination is 3 hours. |  |  |
| A list of materials required is provided. |  |  |
| If necessary, instructions for the preparation of laboratory materials are provided. |  |  |
| The appendix includes a list of materials as well as the procedure to be given to the adult, if requested. |  |  |

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| **PRATICAL PART *(Cont.)*** |
| **Global Appreciation** | **Satisfactory** | **RevisionRequired** | **Comments and Suggestions** |
| **ADULT’S BOOKLET** |
| The scenario is safe; safety instructions are clearly stated when needed. |  |  |  |
| The scenario proposes at least four tasks associated with each of the four evaluation criteria. |  |  |
| The template complies with the DED and the prototype examination. |  |  |
| The task is complex with the following characteristics: |  |
| * Mobilizes several concepts
 |  |  |
| * Permits several solutions
 |  |  |
| * Proposes a problem to be solved
 |  |  |
| * Requires the development of a laboratory report, following an outline that is provided
 |  |  |
| * Uses judgment, reasoning and analysis
 |  |  |
| * Mobilizes the four evaluation criteria
 |  |  |
| Content is **original** (not based on educational accounts or other materials) and is mathematically and scientifically sound. |  |  |
| The level of difficulty is appropriate. |  |  |
| Scenarios are free of stereotypes, discriminations or offensive elements. |  |  |

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| **PRACTICAL PART *(Cont.)*** |
| **Global Appreciation** | **Satisfactory** | **RevisionRequired** | **Comments and Suggestions** |
| **ADULT’S BOOKLET (*Cont.)*** |
| The appendices (tables, formulas and quantities) are complete and conform to scientific conventions. |  |  |  |
| Copyright: |  |
| * Rights have been obtained; supporting documents clearly indicate sources (if necessary).
 |  |  |
| * The images and texts are copyright-free; the source of each image and text is clearly identified underneath it.
 |  |  |
| * In the case of photos or drawings made by the authors of the exam, a letter granting copyright permission to GRICS is attached to the examination.
 |  |  |
| **CORRECTION KEY** |
| Examples of appropriate responses are provided for all tasks. |  |  |  |
| **EVALUATION BOOKLET** |
| The checklist contains observable actions for each criterion. |  |  |  |
| Each observable action connects with the concepts evaluated and respects the elements of the evaluation criteria. |  |  |
| The observable actions can be evaluated using the Criterion-Referenced Rubrics. |  |  |
| A total of 40 marks are allotted. |  |  |  |

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| **PRACTICAL PART *(Cont.)*** |
| **Global Appreciation** | **Satisfactory** | **RevisionRequired** | **Comments and Suggestions** |
| **CONCORDANCE OF BOOKLETS** |
| There is a concordance between all the documents: *Guide, Adult’s Booklet, Correction Key, and Evaluation Booklet.* |  |  |  |