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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 of Competencies** | **Evaluation of Explicit Knowledge** | |
| **Kinematics** | Reference system | | |  |  | |  |
| Uniform rectilinear motion | | |  |  | |  |
| Uniformly accelerated rectilinear motion | | |  |  | |  |
| Motion of projectiles | | |  |  | |  |
| **Geometric Optics** | Snell’s Law | | |  |  | |  |
| Images | | |  |  | |  |
| **Categories of Techniques** | **Techniques** | | | | | **Practical Part**  **Evaluation of Competencies** | |
| **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** | **Revision Required** | | **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** | | **Revision Required** | **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** | **Revision Required** | **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** | | | **Revision Required** | **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** | **Revision Required** | | **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** | **Revision Required** | | **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** | **Revision Required** | | **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** | | **Revision Required** | | **Comments and Suggestions** | |
| **CONCORDANCE OF BOOKLETS** | | | | | | |
| There is a concordance between all the documents: *Guide, Adult’s Booklet, Correction Key, and Evaluation Booklet.* | |  | |  | |  |