

CARIBBEAN EXAMINATIONS COUNCIL

**REPORT ON CANDIDATES' WORK IN THE
CARIBBEAN ADVANCED PROFICIENCY EXAMINATION®**

MAY/JUNE 2014

ECONOMICS

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GENERAL COMMENTS

The CAPE Economics examinations consist of two units – each examined by the following papers:

Paper 01 – Multiple Choice

Paper 02 – Essay

Paper 031 – School-Based Assessment (SBA) (done by school candidates)

Paper 032 – Alternative to School-Based Assessment (done by private candidates)

The overall performance of candidates was satisfactory.

UNIT 1

Unit 1 dealt with microeconomic theories, concepts and issues. Performance in Unit 1 was good. The mean mark was 166.83 out of 300 (55.61 per cent). The standard deviation was 46.26.

Unit 1 was divided into three modules:

Module 1 – Methodology of Economics and the Analysis of Demand and Supply

Module 2 – Market Structure, Market Failure and Intervention

Module 3 – Distribution Theory and Application of Recent Theoretical Developments

Module 1 tested candidates' basic understanding of the central problem of economics, scarcity in relation to the production possibilities curve as well as the alternative mechanism through which scarce resources are allocated. The module also examined the theory of consumer demand, specifically the calculation and interpretation of price elasticity of demand and the concept and graphical representation of consumer surplus. Performance on this module was fair. The mean mark was 56.01 out of 100. The standard deviation was 17.46.

Module 2 examined candidates' ability to calculate and analyse cost and revenue data in relation to a market structure. They were also required to analyse the characteristic of *no barriers to entry and exit* - to analysis the long run condition of the perfectly competitive firm. Also tested was candidates' in-depth understanding of market failure and how asymmetric information in the used car market and negative externalities contribute to market failure. The concepts tested included public goods, externalities and asymmetric information. Performance on this module was fair. The mean mark was 50.07 out of 100. The standard deviation was 18.74.

Module 3 required an understanding of demand and supply factors. Concepts tested were derived demand and demand and supply of labour. Also examined was the marginal productivity theory particularly the concept and calculation of the *least cost rule*. The module also tested candidates' understanding of poverty and inequality and the application of the Gini coefficient and the Lorenz curve to the concept of inequality. Candidates were also required to draw and interpret the Lorenz curve and the related Gini coefficient. They were also required to know how government alleviates poverty and inequality. Performance on this module was satisfactory. The mean mark was 55.67 out of 100. The standard deviation was 18.59.

UNIT 2

Unit 2 dealt with macroeconomic theories, concepts and issues. Many candidates demonstrated a good grasp of the subject matter. Overall, performance was good. The mean for Unit 2 was 175.57 out of 300 (58.82 per cent). The standard deviation was 47.88.

Unit 2 was divided into three modules:

Modules 1 – Models of the Macroeconomy

Modules 2 – Macroeconomic Problems and Policies

Modules 3 – Growth, Sustainable Development and Global Relations

Module 1 required candidates to demonstrate knowledge and understanding of basic macroeconomic concepts, National Income, the Keynesian Consumption theory and the Classical Model. Performance was good. The mean mark was 60.28 out of 100; Standard deviation was 19.30.

Module 2 tested candidates' knowledge of Monetary Theory and Policy, and Fiscal Policy. Performance was fairly good. The mean mark was 52.02 out of 100. The standard deviation was 19.03.

Module 3 dealt with Growth and Development, International Trade, Exchange Rate and Foreign Direct Investments. Performance on the module was good. The mean mark was 58.96 out of 100. The standard deviation was 17.89.

DETAILED COMMENTS

UNIT 1 – MICROECONOMICS

Paper 01 – Multiple Choice

Paper 01 consisted of 45 items, 15 on each module, spanning knowledge, comprehension, application and interpretation of information. The mean mark was 58.74 out of 90 (65.27 per cent). The standard deviation was 15.98. Seventy-eight per cent of the candidates scored at least 50 per cent of the maximum available marks. Six candidates achieved the maximum mark.

Paper 02 – Essays

Paper 02 required candidates to employ higher-level competencies to analyse economic issues, apply economic theories in solving problems and evaluate economic policies and programs. Candidates were required to answer one of two questions in each of the three modules. Each question was worth 25 marks. Performance on the paper was less than satisfactory. The mean mark was 32.62 out of 75 (43.49 per cent). The standard deviation was 14.33.

Question 1

This question tested candidates' knowledge of the central problems of economic, including scarcity, production possibility frontier and types of economic systems. The question was attempted by approximately 84 per cent of the candidates, 44 per cent of whom scored at least 50 per cent of the available marks. One candidate achieved the maximum available mark.

Performance on this question was only fair. The mean was 11.62 out of 25 (46.48 per cent). The standard deviation was 4.75.

Part (a) required the candidates to define the term *scarcity*; draw and label the production possibilities frontier (PPF) and to use the PPF to explain the concepts of scarcity and economic growth. In Part (b), candidates were required to state the differences between a *command economy* and a *free market economy*.

Most candidates gave a partial definition for Part (a) (i). Candidates either wrote about limited resources only or unlimited wants only. Few spoke about consequences of scarcity for example high prices instead of defining the term. Some candidates wrote the definition for shortage instead of the definition for scarcity.

For Part (a) (ii), some candidates drew the demand, supply and indifference curves instead of the required PPF. Some curves were incomplete because they did not touch the boundaries. Some curves drawn were not labelled. Some candidates did not use the information in the question to label the graph. Few labelled the axes incorrectly or did not use correct title for diagram.

In Part (a) (iii), most of the candidates were able to define opportunity cost. The candidates who were unable to do so gave incomplete definitions. Definitions ranged from: 'next best choice given up'; 'next best cost given up' and 'opportunity forgone'. Candidates explained combinations of goods rather than mentioning the opportunity cost aspect. For example, most candidates mentioned that you could produce 20 units of food and 50 units of clothing but did not mention exactly how much of one good you had to give up in order to get more of the other or that if you produced more food, then less clothing would be produced and vice versa. A significant number of candidates did not relate the concept of opportunity cost with the diagram drawn as required by the question. For the most part, the candidates understood that a choice would have to be made because of scarcity and this resulted in opportunity cost.

For Part (a) (iii) (b), some candidates mentioned short term growth instead of long term growth which was required. There were candidates who spent much time defining economic growth and failed to answer what caused economic growth. A significant number of candidates gave the definition for economic growth instead of stating a factor that could cause the PPF to shift outward. Some candidates were successful in giving three factors that would cause the shift but a few failed to show it on the PPF. For those who did not show the shift, many mentioned that the curve would move to point 'x' or 'y' or some point outside of the PPF.

In Part (b) (i), most candidates were able to distinguish between the two economic systems mentioned in the question. However, some candidates interchanged the free market with the mixed economy or they compared the command economy with the monopoly market structure. Some candidates also compared the free market system with perfect competition.

In this part of the question, a few candidates mentioned that the command economy is closed; that there is lack of resources or technology, which is not factual. Also inaccurate is the statement that 'there is/are no rule (s) in the free market economy and that consumers are free to do what they want'. Some candidates even stated that the government controls everything in the free market economy. Several candidates confused advantages and disadvantages of the command economy with the characteristics of the planned economy.

Candidates managed to outline the disadvantages but did not put forward implications of the disadvantages in Part (b) (ii). A number of candidates confused the advantages with disadvantages. Many candidates were unable to develop the points that they listed in order to score full marks. The majority of candidates found this question to be very challenging. Candidates spent time discussing the disadvantages of the planned economy and failed to identify and discuss the points that would cause the demise of this economy.

Recommendations

Teachers are encouraged to delve into deeper analysis with students. Teachers should go beyond listing disadvantages and advantages of the different economic systems but also explore the implications and related issues. It is clear that this topic has been overlooked by the teachers and might be assumed to be taught in other subjects, which might be true, therefore it is the teachers' responsibility to go beyond recall and teach students how to analyse, the basics concepts. Teachers should emphasize the distinction between shortage and scarcity. Demand should not be confused with human wants nor should supply be confused with resource endowment. Supply and demand are precise concepts and should be taught as such as not used loosely.

Emphasis must be placed on the importance of labelling the diagrams and having appropriate/ correct titles. Reference must always be made to the question e.g. if food and clothing are given as variables for the axis students should use milk and cheese as alternative variables. So if a scenario is given in the stem of the questions students are required to use the information given in their answer, thereby refraining from labelling the axes "x" and "y" or "good x" and "good y". They should do the same in the discussion.

As it relates to the PPF teachers should clearly distinguish between long-term growth and short-term growth and the circumstances under which these are achieved as well as pivots versus shifts. It is suggested that teachers encourage students to pay attention to the marks allotted for the question as well as the instructive words used in the stem, as this is a guide to the amount of information needed for their answers.

Teachers would also emphasize to students that when stating the differences between two terms they should clearly give the contrast without the use of the phrase 'vice versa', 'and the other is not' etc. Teachers should emphasize the differences between economic systems and market structures.

Question 2

Question 2 tested candidates' knowledge of consumer demand. The question was attempted by approximately 16 per cent of the candidates, 57 per cent of whom scored at least 50 per cent of the maximum available mark. Two candidates achieved the maximum available mark. Performance on

this question was satisfactory. The mean was 13.20 out of 25 (52.80 per cent). The standard deviation was 6.17.

Part (a) tested the candidates' ability to recall the determinants of price elasticity of demand and to calculate and interpret the concept. Part (b) required candidates to sketch the demand curve from given coordinates, determine the revenue regions and advice the firm on its pricing decision. Part (c) tested the candidates' understanding of consumer surplus and required them to illustrate, graphically, consumer surplus in the context of a price floor.

Though Part a (i) required candidates to list the determinants of price elasticity of demand (PED) many listed the determinants of demand instead. Part a (ii) required the candidate to calculate PED. Many candidates were unable to show the sequential calculation of PED. They also ignored the negative sign throughout the calculation for change in demand. Many candidates used the point method rather than the arc method in calculating PED. While many candidates stated that the PED for the good was elastic, they did not explain what it meant.

In Part b (i), candidates were required to sketch the demand curve for the firm, showing the revenue before and after the price change. Many candidates lost marks for not clearly illustration the before and after regions on the diagram.

Candidates were required to advice ABC company on a pricing decision in Part b (ii). Some candidates made reference to the law of demand instead of analyzing the effect of elasticity on the revenue of a firm.

Part c (i) required candidates to define the term *consumer surplus*. Some defined consumer surplus in terms of 'benefits' and not the difference between what they are willing to pay and what they actually pay for a good or service.

Finally, candidates were required to use a well labelled diagram to illustrate consumer surplus after the imposition of a price floor, in Part c (ii). Many candidates were unable to superimpose the price floor in the correct position on the diagram. Many of them omitted the supply curve while still identifying consumer surplus, however, this is not possible as it can only be done against the back ground of a market equilibrium. Candidates also had difficulty identifying the correct consumer surplus position after the imposition of a price floor.

Recommendations

Teachers are encouraged to emphasize the calculation of elasticity and the concept of elasticity as well as the application of elasticity results. Teachers should also emphasize that every point along the demand curve represent how much an individual who demands the good is willing to pay for the good. This might be futile if students are not taught thoroughly how to read off points on a diagram. It is also recommended that teachers do not teach topics in isolation but make linkages between topics so that students can have a more rounded learning experience.

Question 3

Question 3 tested candidates' knowledge of market structure. The question was attempted by approximately 48 per cent of the candidates, 62 per cent of whom scored at least 50 per cent of the maximum available mark. Seven candidates achieved the maximum available mark. Performance was fair. The mean was 12.33 out of 25 (49.32 per cent). The standard deviation was 5.80.

This question tested candidates' knowledge of the theory of the firm. Part (a) required candidates to calculate marginal and average cost values from given data and to plot same curves. In Part (b), candidates were required to explain the relationship between marginal cost and average cost assisted by an example. The question further required the candidates to use the information in the table to determine the market structure represented by the table. Finally, in Part (c) students were required to analyse how the characteristic of "no barriers to entry and exit" ensures the long run condition of a perfectly competitive firm.

In Part (a) (i) a number candidates were successful in computing the marginal cost correctly or the average cost but a smaller number were able to compute both. Some candidates confused the average cost and the marginal cost by putting them under the wrong column.

A common thread found in Part a (ii) was that many candidates did not use the information in the table to plot the graph, this did not reflect the students inability to plot the curves but their inability to follow clear instructions. Some candidates had difficulty labelling the axes correctly, many candidates labelled the y-axis 'price' OR 'quantity' OR 'y' whereas others did not label it at all. Many candidates did not apply appropriate scales to the Cartesian plane. Many of them had challenges potting the curves correctly.

In a few instances some candidates mistook the average cost (AC) for the independent variable rather than the dependent variable in relation to the marginal cost (MC), in Part b (i). In that same section, a significant number of candidates fail to mention the point that when MC rises AC is still falling. Most candidates were unable to give the example required to show the relationship between MC and AC. Instead of stating the relationship between MC and AC some candidates were defined them.

In Part (b) (ii), the majority of the candidates were able to identify the market structure but they were unable to justify them. Those who were able to justify only mentioned one point, namely, that the firm had constant marginal revenue. Most candidates were successful in listing the characteristics of perfect competition namely barriers to entry, but those who did not mention this spoke about many buyers and sellers.

Recommendations

Teachers should emphasize that students use the information in the table to plot graphs where applicable. Emphasize proper labelling of graphs for market structure. Teachers should accentuate the relationship between the MC and the AC but stress that *when MC starts to rise AC is still falling*. Teachers are encouraged to use a variety of examples to bring across the relationship between MC and AC. Teachers need to teach the reverse to Part (c). That is,

- There is a lack of barriers to entry/freedom of entry and exit
- If firms are making subnormal profits they leave the industry

- This will cause Industry supply to go down
- Causing market price to increase
- Until $P = AC$ and all firms are making normal profits.

Question 4

Question 4 tested candidates' knowledge of market failure. The question was attempted by approximately 52 per cent of the candidates, only 16 per cent of them scored more than 50 per cent of the available marks. The highest mark was 24 out of 25, this was achieved by one candidate. Performance on this question was weak. The mean was 7.16 out of 25 (28.64 per cent). The standard deviation was 4.84.

Part (a) required candidates to define the term 'public goods' and explain why these are normally provided by the government. In Part (b), candidates were expected to define the term 'externality'. They were given a diagram illustrating a negative production externality, and were required to label the diagram and mention three policies that the private sector could adopt to correct market failures. Part (c) required the candidates to identify the issue of asymmetric information from a scenario given and to explain how it can lead to market failure.

In Part a (i), candidates were required to outline the causes of market failure (specific to public goods). Better prepared candidates were able to define the characteristics of public goods (non-rivalry and non-excludable). However, the lesser prepared candidates gave examples or stated that they were provided by the government. Some candidates were unable to distinguish between merit and public goods.

In Part (a) (ii), stronger candidates were able to explain why the private sector would not provide these goods (because of the lack of a profit motive). However, many candidates tried to justify the reasons why the government should provide these goods - This may have been due to the way the question was phrased.

Parts (a) (i) and (ii) required candidates to outline the causes of market failure (with respect to externalities). Many of the candidates scored full marks in this section. The few candidates who scored one mark clearly understood the concept of externalities but didn't state whether it was positive or negative.

In Part b (ii) a), many of the candidates were able to identify the shaded area as deadweight loss. However, the identification of the MSC and PMC curves proved challenging. The candidates identified them as supply curves because they did not recognize that the demand curve was the SMB curve. Some candidates did not copy the diagram correctly (omitting labelling axes or the demand curve).

In Part b (ii) b), most candidates started to define externalities again and didn't make reference to the diagram. Candidates who didn't recognize the SMC and PMC curves from previous question were unable to explain that market failure occurs from externalities (because $SMC > PMC$). A number of candidates were unable to identify the socially optimum level (Q2) from the profit maximizing level for the firm (Q1). Candidates were able to identify that when negative externalities exist it causes over production and dead weight loss.

Part b (iii) required candidates to evaluate the measures used by the private sector to correct market failure. Stronger candidates were clearly able to outline the policies used by the private sector to correct market failure. However, many candidates were more familiar with public sector intervention and used this to answer the question instead.

In Parts (c) (i) and (ii), candidates should be able to outline the causes of market failure (due to asymmetric information).

For Part (c) (i), many candidates failed to identify asymmetric information as the issue being described. Many candidates identified the issue as imperfect information / knowledge, adverse selection.

In Part (c) (ii), the situation described in the question was unfamiliar to many candidates. Stronger candidates were able to identify that it was adverse selection. However, weaker candidates could not.

Candidates could not explain how adverse selection led to market failure in this particular situation. Weaker candidates thought market failure meant that the business would shut down. Very few candidates were able to state that the suppliers of good quality cars would be disadvantaged.

Recommendations

More attention placed on the distinction between merit and public goods.

Teach asymmetric information from a product perspective and not just service.

Question 5

Question 5 tested candidates' knowledge of demand and supply factors. The question was attempted by approximately 18 per cent of the candidates. Only 15 per cent of them scored more than 50 per cent of the marks. One candidate achieved the maximum available mark. Performance on this question was poor. The mean was 6.87 out of 25 (27.48 per cent). The standard deviation was 4.62.

Part (a) focused on the theory of distribution with emphasis on the labour market. Candidates were required to explain the term 'derived demand' and outline factors that influence the demand for labour and the supply of labour. Part (b) required the candidates to outline the least cost rule and calculate the hourly rental price from the rule. They were also required to draw and label a diagram showing marginal revenue product curve and the impact that a decrease in the demand for the good. In Part (c), candidates were required to outline two factors that can account for the disparity in worker productivity.

In Part a (i), most candidates scored full marks for this question. Those who did not were not familiar with the concept. In Parts (a) (ii) a) and b), some candidates did not recognize that it was the firm demanding the labour and the workers supplying the labour. Strong candidates were able to outline the factors (wage rate and demand for the good was most common). For Part (a) (ii) b), candidates focused on the supply of labour for a particular occupation — many of them stated education and training as factors influencing the supply of labour. The popular responses were migration, wage rate and population.

An overwhelming majority of candidates were unable to state the least cost rule as required in Part (b) (i). In Part b (ii), some candidates were able to use mathematical analysis to arrive at the answer but not using the least cost rule formula. For Part (b) (iii), few candidates scored full marks. Candidates were more familiar with the MRP curve for labour and not capital. This was seen in the incorrect labelling of the axes. In Part (c), many candidates scored full marks. A few gave factors from industry to industry and not country to country. Many candidates stated rather than outlined the factors.

Recommendations

It is suggested that teachers emphasize the least cost rule and factors affecting productivity.

Question 6

Question 6 tested candidates' knowledge of income inequality, poverty and poverty alleviation. The question was attempted by approximately 82 per cent of the candidates. Forty-five per cent of them scored more than 50 per cent of the maximum available mark. Fifteen candidates achieved the maximum available mark.

Performance was only fair. The mean was 12.08 (48.32 per cent). The standard deviation was 5.46.

The question tested candidates' understanding of poverty and income inequality. In Part (a) (i), candidates were required to distinguish between 'relative and absolute poverty'. While most of the candidates were able to define 'absolute poverty', many candidates were unable to define 'relative poverty'.

The weaker candidates failed to show that 'relative poverty' was a comparison between the individual income and the average income. Additionally, the weaker candidates focused on minimum wage and not average income. Part (a) (iii) was fairly well done by most of the candidates. The main challenge was that a number of candidates identified strategies but were unable to effectively explain how the strategies stated could alleviate poverty.

Less than half of them were able to obtain full marks for this part of the question. For Part (b) (i), a number of candidates were able to obtain full marks for this part of the question. The candidates who performed poorly made the following mistakes:

- Incorrectly labelled the axes. Most failed to label 'percentage income' on the 'Y' axis and 'percentage population' on the 'X' axis.
- Candidates drew two diagrams although the questions asked for one.
- Incorrectly labelled the Lorenz Curve with Gini coefficient 0.33 and 0.61. There was a general lack of understanding of the relationship between the line of equality and the values given. Thus they were unable to place the appropriate values of Country 'A' relative to Country 'B'.
- There was a demonstration of lack of understanding between the 'line of equality' and the 'line of inequality'.

Part (b) (ii) was fairly well done. The stronger candidates were able to explain *income inequality* with the use of examples or by giving the factors that contributed to inequality. However, no candidate

focused on expressing the distribution of income as a percentage of the income to a percentage of the population. Instead responses focused on the coefficient range being between zero and one; where closer to zero being income evenly distributed and closer to one being more unevenly distributed. Part (b) (iii) posed a challenge to most of the candidates. Those who did not draw the graph properly were unable to make specific comparisons. Some of those candidates who drew the graph properly were still unable to utilize the information effectively in order to maximize their scores.

Recommendations

Teacher should employ projects and group assignments as teaching techniques for this section of the syllabus. This section of the syllabus lends itself to real-world applications that students can relate to and find data on. Doing this will not only help to complete the syllabus in the required time but will also help students to understand what is thought to be a very manageable and straight forward topic. Concerning the Lorenz curve, teachers should gather data and have students plot the Lorenz curve and explain what each coordinate means, this should assist students in drawing the correct curve.

Paper 032 – Alternative to School-Based Assessment

The theme of paper 3/2 was the earnings of differential categories of workers and existing wage differentials. Forty-four candidates wrote the examination. Performance on this paper was unsatisfactory. The mean was 20.96 out of 60 (34.94 per cent). The standard deviation was 8.49. The table below shows the means and standard deviations for the three questions.

	Question 1	Question 2	Question 3
Mean	6.37	3.69	10.91
Std. Dev	3.42	2.60	4.92

Question 1

Part (a) was comprised of five parts. It required candidates to: define the term ‘price ceiling’; state the condition for an effective price ceiling’; define the term ‘price floor’; state the condition for an effective price floor; and identify three problems likely to arise from the imposition of price ceilings and price floors. Part (b) was comprised of two parts. For Part (b) (i), candidates were required to illustrate, in a diagram, the market for unskilled labour, indicate the equilibrium wage rate and equilibrium level of employment. Part (b) (ii) required students to use the same diagram from Part (b) (i) to explain how the market for unskilled labour is affected by the implementation of a minimum wage. They were also required to indicate the minimum wage, the number of workers employed and the number of workers unemployed.

Candidates’ performance on Part (a) was fair. However, for the definitions of price ceiling and price floor, candidates frequently neglected to include the word “legal” as part of the definition. In addition, candidates were unable to identify three problems that arise from implementation of price ceilings and price floors; in most cases only one or two problems were provided. For Part (b), candidates had difficulty labelling the appropriate concepts required in the second part of the question.

Recommendations

Candidates need to improve their understanding of the effects of price controls on the market. This is especially important since the concepts of demand and supply, underpin these critical policies. The focus should include, but not be limited to, the meaning of price ceilings, price floors and the reasons why they are implemented by governments. Candidates should also practice analyzing various situations that require demand and supply diagrams.

Question 2

Part (a) required candidates to state four conditions which must be satisfied in a perfectly competitive labour market. Part (b) required them explain how equilibrium wages could be accomplished in the long run in a perfectly competitive market with only two jobs which initially pay different wages. Part (c) had three parts. In Part (c) (i), candidates were required to copy and complete a table, by calculating the total variable cost, the total cost and the marginal cost. In Part (c) (ii), candidates were required to describe the type of market in which the firm in the named firm hires labour. Part (c) (iii) had three parts. First, candidates had to determine how many units of output the firm would hire to maximize profits; second, how many units of labour would be hired at the profit maximum; and third, provide an equation to show the relationship between output and labour at the profit maximum.

Candidates performed well on Part (a), frequently providing four conditions. Part (b) created the most challenge as candidates were unable to apply the concepts of a perfectly competitive market to the concept of long-run equilibrium in the labour market. In Part (c) many students were unable to calculate the variable cost which required them to multiply the wage rate by the number of labour units for each output level. Consequently, they calculated the total cost and marginal costs incorrectly. In addition, many candidates were unable to calculate marginal cost.

Recommendations

Candidates are urged to consider the characteristics of each market structure more carefully, particularly those of perfect competition and monopoly, since they are on opposite ends of the spectrum of market structures. They should also spend time applying the characteristics of various market structures of different types of markets. Candidates also need to work on calculation of various streams of revenues (TR, MR, AR) and costs (TC, TVC, MC, ATC, AVC).

Question 3

Part (a) required candidates to explain the concept of ‘wage differentials’. Part (b) required them to outline three costs of poverty. Part (c) required candidates to identify four factors that contribute to poverty in their country. Part (c) required candidates to state three economic benefits of governmental strategies of poverty alleviation. The final part of the question, Part (d) required candidates to discuss two factors that may account for the differences in wages among various categories of workers, for example, unskilled, clerical, trades, or professionals.

Part (a) was well done by the majority of candidates. In Part (b), candidates had difficulty outlining three costs of poverty. Candidates frequently provided costs that were essentially the same thing. Part (c) was also well done. The only drawback was that candidates were challenged to provide three economic benefits. They typically provided two, or provided benefits that were not necessarily

economic in nature. Candidates' performance in Part (d) fell down because they were unable to fully discuss the factors which they provided.

A major concern is that candidates do not possess the required depth and breadth of knowledge of the material in Module 3. Candidates' answers demonstrate only basic knowledge of the concepts and little in the way of application of these concepts. It is highly recommended that candidates may need to address these shortcomings by seeking guidance from teachers of the subject matter.

Paper 031-School—Based Assessment (SBA)

Generally the projects selected are properly formulated and the objectives were related to the topics. The aims were clearly stated and the methodologies were appropriate. The data collected were well organized, presented, analysed and mirrored the applicable economic concepts, principles, methods and theories for the unit under investigation.

Strengths

- Students demonstrated good knowledge of the theories, principles and concepts necessary to present good projects.
- The topics chosen were appropriate as they were in agreement with the criteria (mark scheme) outlined in the syllabus.
- The economic concepts used were related to the topic selected; they were clear, precise and significant.
- Economic theories were appropriately used.
- There was evidence of marked improvement in the analysis and the interpretation as the candidates showed accurate calculation of economic data and relatedness to variables.
- Some candidates showed that they were able to well articulate and organize their evidences which showed good problem solving skills.
- Candidates presented theoretically correct judgments based on the findings of their research topics.
- Some candidates demonstrated good citations and referencing of the data sources from which information was garnered.
- Excellent use of language and reporting skills were evident throughout the report.

Weaknesses

Even though there are improvements in the general submissions of the IAs, there is still need for improvement in the following areas:

- Communication – Bibliography/Reference should be written with an international standard; citation needs improving – all citation used in the project must appear in the bibliography; internet citation should also be written in the bibliography; interview source should be written in bibliography.
- Wikipedia is not a credible source to cite. Example: www.wikipedia.com; so too is www.ask.com
- Some candidates are still using sociology theories and concepts as part of the economic data source; they need to use social economics aspects to validate their research.
- Candidates should abstain from using social media language and jargons in their internal assessment projects. Example: use the letter “u” in place of the word “you”.
- It was observed that some students were still struggling to formulate appropriate topics for their research. Example: **“Barbara’s Nail Salon”**; **“Stylux”**; **“Diana’s Dinner Mint”**; **“An investigation and analysis into the Economic System of Raj Wrecking Service”**.
- Some candidates still showed weakness in formulating their objectives. Objectives should be specific to topics under investigation,
- Sometimes mark awarded by teachers were not consistent with the marking criteria set out in the syllabus, as a result, marks awarded appeared to be inconsistent and subjective.

- A large number of reports were too similar.
- Methodology should speak specifically to design of the instruments and validation of the reasons why they are suitable for the specific research– explain population size, sample size, instruments, as well as limitations.
- Recommendation should be workable solutions to the problems presented.
- Some candidates are still having challenges in linking the judgment and recommendations to the topics being researched and the findings.

Recommendation

It is recommended candidates do their individual presentation of data although they collaborated in the gathering of the data. Example: Reports should not have the same words and exact data variables and same questionnaires, same sample. Teachers so liaise with other teachers who prove to be strong in the SBA component of the assessment and engage in information sharing. This includes peering into exceptional papers, average papers and poorly done papers to ascertain what the standard is, so as to aid them in guiding the students as well as marking the SBA.

UNIT 2 – MACROECONOMICS

Paper 01 – Multiple Choice

Paper 01 consisted of 45 items, 15 on each module, spanning knowledge, comprehension, application and interpretation of information. The mean mark was 64.39 out of 90 (71.55). The standard deviation was 14.54. Eighty- nine per cent of the candidates scored at least 50 per cent of the maximum available marks. Eighteen candidates achieved the maximum mark.

Paper 02 – Essays

Paper 02 required candidates to employ higher-level competencies to analyse economic issues, apply economic theories in solving problems and evaluate economic policies and programs. Candidates were required to answer one of two questions in each of the three modules. Each question was worth 25 marks. Performance on the paper was less than satisfactory. The mean mark was 32.72 out of 75 (44.96 per cent). The standard deviation was 16.9.

Question 1

Question 1 tested candidates' knowledge of national income accounting. The question was attempted by approximately 70 per cent of the candidates, 63 per cent of them scored more than 50 per cent of the available marks. Fifty candidates achieved the maximum available mark. Performance on this question was good. The mean was 14.76 out of 25(59.04 per cent). The standard deviation was 6.16.

Part (a) required the candidates to define the term 'intermediate good'. Part (b) (i) required the candidate to explain why intermediate goods are not counted in the calculation of GDP and Part (b) (ii) to define the term 'value added'. Part (c) tested the candidates' ability to state the formula for calculating GDP using the expenditure approach and to calculate the GDP using the expenditure

approach. This section also required candidates to explain the income approach for calculating GDP and calculate the GDP using the income approach. The final part in the question, Part (d) required the candidates to describe three types of ‘leakages’ from the circular flow of an economy.

Candidates were unable to accurately define the term “intermediate good”. They confused the definition with that of the term “work in progress.” Most candidates were able to identify double counting as a reason for not adding intermediate goods in the calculation of GDP but several of their explanations were inaccurate since they alluded to secondhand goods. Most candidates scored full marks in Part (c) (i). In Part (c) (ii), most candidates were able to define the income approach to GDP as the summation of the rewards of the factors of production, however, some candidates failed to include “rewards in the factors of production”. In Part (d), most candidates were able to identify the leakages but were unable to explain how they impacted the circular flow through the reduction of aggregate demand.

Recommendation

Teachers are encouraged to stress the difference between intermediate goods among work in progress and second hand goods. Teachers are also encouraged to show how linkages impacted the circular flow through the reduction of aggregate demand.

Question 2

Question 2 tested candidates’ knowledge of national investment and unemployment under the classical model. The question was attempted by approximately 30 per cent of the candidates, 24 per cent of them scored more than 50 per cent of the available marks. The highest mark on this paper was 24 out of 25, this was achieved by one candidate. Performance on this question was less than satisfactory. The mean was 9 out of 25(36 per cent). The standard deviation was 5.

Part (a) required candidates to define *macroeconomic variables investment and interest rate*. Part (b) required candidates to distinguish between savings and consumption as well as explain the term ‘marginal propensity to consume’ with the use of an example. Part (c) required candidates to calculate the equilibrium level of income and state the multiplier of the economy from a given aggregate expenditure for an economy. Part (d) required candidates to explain durability, the accelerator, and irregularity of innovation as determinants of the variability of investment.

For Part (a) (i), candidates used the accounting definition of investment in lieu of the economic definition causing them to lose valuable marks. Part (ii) was most widely known as candidates knew at least one definition of interest rate. Most candidates were also able to adequately distinguish between savings and consumption in Part (b), however, not all candidates fully understood the term ‘MPC’ and were unable to apply the term by use of proper example. Many candidates did not show an understand of ‘MPC’ as a percentage; they were under the impression that the change in consumption was a change in the amount of units of a good consumed as opposed to the change in the amount of additional income consumed. For Part (c), candidates in most cases, had the formula but did not equate it to ‘Y’ as such, were mathematically deficient in completing the calculation of equilibrium GDP. Additionally, candidates for the most part did well in stating the multiplier of the economy but some were unable to score any marks because they simply did not know the multiplier. Part (d) (ii) showed that candidates did not know the accelerator theory, however, they did attempt to use whatever knowledge they had in other areas to answer the question. Predominantly, candidates

did not know the concepts and as such, lacked the ability to make the link between the variables identified and the changes in investment.

Recommendation

Candidates should be instructed that there is a difference in the use of terms and concepts in the economic and accounting fields.

Question 3

Question 3 tested candidates' knowledge of monetary theory and policy. The question was attempted by approximately 70 per cent of the candidates, 31 per cent of them scored more than 50 per cent of the available marks. One candidate achieved the maximum available mark. Performance on this question was less than satisfactory. The mean was 9.69 out of 25(38.76 per cent). The standard deviation was 6.16.

Part (a) required candidates to define the velocity of money, currency substitution and monetary transmission mechanism. Part (b) required candidates to outline three type of demand for money. Part (c) required candidates to assess how the Central Bank can use monetary policy to positively impact aggregate demand. Part (d) required candidates to discuss two reasons why the Central Bank's policy options to combat inflation may achieve only limited success.

Most candidates stated that velocity of money was the number of times money changed hands, failing to specify that it is the number of times a single unit of currency (a dollar) changes hands within a given period of time. In relation to currency substitution, most candidates defined it as the exchange of one currency for another, instead of stating that it was the abandonment or replacement of the local currency in preference for a foreign currency due to loss of confidence in the local currency. Monetary transmission mechanism proved most challenging for candidates. For those who attempted, it, they stated that it was the transfer of money from one entity to another. Candidates failed to show the cause and effect between monetary variables and real variables (real GDP, real National Income, unemployment, inflation).

For Part (b) candidates performed very well on this section, however, some candidates failed to adequately explain the speculative demand for money as being dependent on the movement of bond prices/interest rates. Some candidates failed to logically show how expansionary monetary policy would result in an increase in aggregate demand. Candidates incorrectly used expansionary fiscal policy instead of expansionary monetary policy. Candidates also found Part (d) to be very challenging as there was rarely any logical explanation on how endogenous or exogenous factors can minimize the effectiveness of the Central Bank's policy options to combat inflation resulting in limited success.

Recommendation

Teachers should pay keen attention to defining macroeconomic terms and showing cause and effect between macroeconomic variables. Teachers are also advised to use real-life situations to disseminate the tools, uses of and limitations of macroeconomic policy options.

Question 4

Question 4 tested candidates' knowledge of fiscal policy and public debt. The question was attempted by approximately 30 per cent of the candidates only 18 per cent of them scored more than 50 per cent of the available marks. The highest mark was 24 out of 25; this was achieved by 4 candidates. Performance on this question was poor than satisfactory. The mean was 6.58 out of 25(26.32 per cent). The standard deviation was 6.18.

Part (a) consisted of three subsections which required candidates to define the 'balance budget multiplier', explain the term 'automatic stabilizer', and provide two examples of automatic stabilizers. Part (b) required candidates to explain how government borrowing to finance fiscal deficit impacts negatively on inflation, domestic investment and domestic interest rates. Part (c) consisted of two subsections which required candidates to define the term 'fractional reserve banking system' and describe how the fractional reserve banking system is used in the money creation process.

Some candidates were unable to properly define the terms 'balance budget multiplier'. They defined 'balanced budget' instead. Likewise, most candidates were unable to give a comprehensive explanation of automatic stabilizer; they failed to connect it to fluctuations in the economy. However, most candidates were able to identify the two examples of automatic stabilizers. The majority of the candidates were unable to explain the negative impact of government borrowing to finance fiscal deficit on inflation, domestic investment, and domestic interest rates. Many of the candidates explained how the government repaying the loan will negatively impact on the above variables instead. This part of the question proved to be the most challenging for the candidates. Part (c) was widely known. Most students were able to define the term 'fractional banking system'; however, they did not connect required reserves to the Central Bank. In addition, the majority of the candidates were able to use an example to illustrate how commercial banks create money. The majority of the candidates scored full marks in this part of the question.

Recommendation

Teachers should make a clear distinction between the balanced budget and the balanced budget multiplier. In addition to defining automatic stabilizers as built-in or non-discretionary fiscal policies, teachers should ensure that students are aware of their purpose as policies that automatically reduce fluctuations in the economy. Finally, teachers can assist students in improving their responses by giving them more practice in answering questions involving application and analysis of theory. Also, it is important to note that most Central Banks accommodate the education of students in the various policy tools used by the central bank and as such will welcome educational field trips to the bank so that students can get a firsthand and practical exposure to the concepts.

Question 5

Question 5 tested candidates' knowledge of growth and sustainable development. The question was attempted by approximately 77 per cent of the candidates, 46 per cent of them scored more than 50 per cent of the available marks. Six candidates achieved the maximum available mark. Performance on this question was only fair. The mean was 11.79 out of 25(47.16 per cent). The standard deviation was 6.08.

Part (a) required candidates to differentiate between ‘economic growth’ and ‘economic development’. They were expected to clearly state what economic development is and what economic growth is and then show distinction. Part (b) required candidates to outline three determinants of economic growth.

Part (c) required candidates to explain the concept of ‘human development index’ while Part (d), required candidates to discuss three ways in which policy makers can enhance the well-being of the society.

The majority of the candidates, had some basic understanding of the concepts of ‘economic growth’ and ‘economic development’ and were able to score at least two marks for correctly defining economic development as an improvement in the standard of living and economic growth as the increase in output. Many candidates demonstrated that economic growth means increase in output but did not specify that economic growth was an increase in REAL GDP and were penalized if only “increase in GDP” was given. Candidates who realized that growth is quantitative and development is qualitative along with correct definitions were awarded the full 4 marks. Part (b) was well done; the majority of candidates scored full marks. Those who scored less than full marks listed as opposed to outlining the determinants. In addition, some candidates did not know the determinants since they wrote GDP, GNP or National Income as their response.

In Part (c), candidates correctly stated that the ‘human development index’ is a measure/indicator of ‘human development’ or a country’s ‘standard of living’. While the majority named at least two of its components, most did not state its use as a means of ranking/rating a country’s human development. In Part (d), the responses showed that students understood the concept of *well-being*. They were able to discuss the ways in which the policies must contribute to improving people’s life but did not articulate three distinct policies. For example, candidates discussed one policy three times or combined several policies as one. Because candidates did not clearly identify the three policies that were being discussed in most instances, it was difficult to decipher their responses. In essence, candidates did not properly structure their responses to this part of the question. Common responses included government spending and fiscal policy which are not specific policies.

Recommendation

The distinction between growth and development must be clearly highlighted. Teachers are advised to give students a more indebt exposure to the determinants of growth as a part of the topic. Also, in addition to explaining the factors, students should be able to explain how these factors influence economic growth. Teachers are urged to encourage students to research UNDP’s website for Human Development Index including the rankings. This will foster students’ research skills as well as expose them to real world indices and interpretations which permit a better grasp and appreciation of the concept. Students should be engaged in discussions regarding real scenarios especially where the topic is dynamic like policy issues and development. Students must be told to structure their responses properly and logically so that reading is meaningful. Features (e.g., new paragraphs) that show distinction among points, must be used. Candidates must use the marks allotted to question as a guide to the depth of the response. It is recommended that candidates clearly number their responses, skip a line between different parts of the question and follow the prompts given. Teachers need to focus on the economic perspective of economic integration rather than the social and cultural.

Question 6

Question 6 tested candidates' knowledge of balance of payments and exchange rates. The question was attempted by approximately 23 per cent of the candidates, 52 per cent of them scored more than 50 per cent of the available marks. One candidate achieved the maximum available mark. Performance on this question was fair. The mean was 12.60 out of 25(50.40 per cent). The standard deviation was 5.29.

Part (a) required candidates to distinguish between the nominal and real exchange rates; convert the nominal exchange rate to the real exchange rate and state the effect of depreciation in the real exchange rate on the price of domestic goods relative to foreign goods, domestic imports and domestic exports. Part (b) required candidates to use a diagram to interpret the effect of increased imports into the domestic country on the demand for foreign exchange and the price of the domestic currency. Part (c) required candidates to discuss two advantages and one disadvantage of globalization on developing countries.

Parts (a) (i) and (ii) were the areas with which candidates were least familiar. In Part (a) (i), candidates tried to apply their knowledge of real versus nominal values from other topics to exchange rates. In the main, very few candidates were able to accurately define nominal and real exchange rates. For Part (a) (ii), only a few candidates scored marks. Candidates were unable to perform the calculations necessary to make the conversion from the nominal to the real exchange rate. Part (a) (iii) was the most widely known area of the question and most students were able to score at least 2 out of the 3 available marks. In Part (b), candidates were able, for the most part, to accurately depict the effect of the increased demand for imported cars. However, when interpreting the changes reflected in the diagram, many students mistakenly applied the increased price to the TT dollar rather than to the foreign currency or the nominal exchange rate. Few candidates were able to associate the increased price with the depreciation of the domestic currency. Part (c) proved to be the most challenging area. Though candidates seemed to have a very general knowledge of the concept of globalization, a significant proportion of them were unable to pinpoint two distinct advantages associated with the phenomenon. Those who were able to do so still fell short in many instances because they failed to make the link between the stated advantage and globalization. On the other hand, some candidates who did make the link failed to show how or why the particular point would act as an advantage to the developing economy. Candidates seemed to think that it was sufficient to say 'globalization leads to ...' without saying how it leads to ..."

Recommendation

Teachers are advised to emphasize to students the definitions of nominal and real exchange rates and to clearly distinguish between them. In addition, teachers are encouraged to reiterate how to convert a nominal exchange rate to a real exchange rate. In relation to the concept of globalization, more attention should be directed in helping students to move from a vague definition of globalization to explaining its advantages and disadvantages, and the process by which these advantages and disadvantages can occur.

Paper 032 – Alternative to School-Based Assessment (SBA)

The theme of Paper 032 was the impact of increasing levels of housing and other development projects on the environment. Twenty-four candidates wrote this paper. Performance was less than satisfactory. The mean was 20.96 out of 60 (34.93 per cent). The standard deviation was 13.46. The table below shows the means and standard deviations for the three questions.

	Question 1	Question 2	Question 3
Mean	8.58	4.83	7.54
Std. Dev	5.30	5.01	5.49

Question 1

Part (a) was divided into three subparts. In Part (a) (i), candidates were asked to differentiate between GDP and GNP. In part (ii) candidates had to identify three approaches used to measure GDP. In part (iii) candidates were required to state three reasons why GDP is not considered a complete measure of economic well-being. Part (b) was divided into two subparts. Part (b) (i) required candidates to define the term *standard of living* and Part (b) (ii) required them to discuss two ways in which an increase in GDP may negatively impact a country's standard of living.

In Part (a) (i) candidates frequently defined the two concepts but did not differentiate between them. In Part (a) (ii), candidates remembered the income and expenditure approaches, but forgot the value-added approach. Part (a) (iii) was done reasonably well. In Part (b) (i), candidates partially defined the term standard of living, losing 1 mark in the process. In Part b (ii), candidates had some difficulty in identifying ways in which increases in GDP can impact negatively on the standard of living. In addition, candidates did not score high because they were unable to provide a full discussion of the issue.

Recommendations

Students need to be aware of the difference between *define* and *differentiate*, as well as the value-added approach to measuring of GDP. Candidates need to expand their understanding of the incompleteness of GDP as a measurement of economic well-being, and also the possible negative impacts from increases GDP.

Question 2

Part (a) had three parts. It required candidates to define: fiscal policy, monetary policy, and economic development. In Part (b), candidates were required to explain two ways in which government strategies to protect the environment can contribute to a budget deficit. Part (c) required candidates to discuss one way in which monetary policy could contribute to negative impacts on the environment from rapid expansion in housing and other development projects, and one way in which fiscal policy could be used to solve the problem.

Candidates struggled with the definitions in Part (a). In Part (b), candidates were able to fully explain one way in which government attempts at environmental protection can increase the budget deficit. In many instances, they provided examples, rather than explanations. In Part (c), candidates were unclear as to how monetary policy could contribute to the problem identified. The answers provided

made little connection with the theory. Candidates performed better with how fiscal policy could help to solve the problem.

Recommendations

Candidates' responses demonstrate weaknesses in relation to the definitions of monetary and fiscal policy, along specific policies and their application to various problems. They are advised to read local and international newspapers and magazines, for example the Wall Street Journal and The Economist, for material that is easily digestible and provides excellent examples of monetary and fiscal policies and their implementation.

Question 3

Part (a) required candidates to define economic growth and the human development index (HDI) in Part (i) and to identify three main variables used in calculating the HDI in Part (ii). Part (b) required candidates to explain the relationship between 'per capita income' and 'environmental quality'. In Part (c), candidates were required to define the term *balance of payments* (BOP) in the first part and to discuss two ways in which environmental degradation can negatively impact the BOP of a country for which tourism is the main driver of income.

Some candidates were able to define economic growth and HDI successfully; however the majority of them lost a mark because they neglected to provide a key component of the definition. In many instances, candidates were unable to provide the three components of the HDI; many mentioned literacy/education and longevity/health, but omitted per capita income. Candidates had great difficulty in explaining the relationship between per capita income and environmental quality. Candidates were able to define BOP, but were unable to provide the link between environmental degradation and the BOP.

Candidates' knowledge of module three is weak. The answers provided were peripheral to the questions asked. The connection between various concepts is non-existent.

Recommendation

It is recommended that greater emphasis be placed on learning the material in this module.

Paper 031 – School-Based Assessment (SBA)

Generally the projects selected are properly formulated and the objectives were related to the topics. The aims were clearly stated and the methodologies were appropriate. The data collected were well organized, presented, analysed and mirrored the applicable economic concepts, principles, methods and theories for the unit under investigation.

Strengths

- Students demonstrated good knowledge of the theories, principles and concepts necessary to present good projects.
- The topic chosen were appropriate as they were in agreement with the criteria (mark scheme) outlined in the syllabus.
- The economic concepts used were related to the topic selected; they were clear, precise and significant.
- Economic theories were appropriately used.
- There was evidence of marked improvement in the analysis and the interpretation as the candidates showed accurate calculation of economic data and relatedness to variables.
- Some candidates showed that they were able to well articulate and organize their evidence which showed good problem solving skills.
- Candidates presented theoretically correct judgments based on the findings of their research topics.
- Some candidates demonstrated good citations and referencing of the data sources from which information was garnered.
- Excellent use of language and reporting skills were evident throughout the report.

Weaknesses

- Some candidates used macroeconomics topics, aims and objectives to investigate and present microeconomic problem solving reports.
- Some candidates use microeconomic topics, aims and objectives to investigate and present macroeconomic problem solving reports.
- It was observed that some students were still struggling to formulate appropriate topics for their research. Example: *“To see and explain how a recession of inflation is the cause of the growing deficit in Balance of Payment”*.
- The topic chosen for the research should be “time specific” and should be confined to a specific region or country. Example: Inflation in Jamaica for the period 2008 to 2010.
- Secondary data source is not used to support evidence of problem solving. The information is used in a general sense with no concrete evidence.
- Some candidates were unable to correctly analyse, synthesis, and apply secondary data to economic topic, concept and theories being investigated.
- Recommendation should be workable solutions to the problems presented. Some candidates are still having challenges linking the judgment and recommendations to the topics being researched and the findings.
- Some candidates still showed weaknesses in writing the methodology, which should show specifically the design of the instruments and validation of the reasons why they are appropriate for the specific research– explain population size, sample size, instruments, as well as limitations.

Recommendations

- Some teachers need to adhere to the marking criteria set out in the syllabus as the marks appear to be inconsistent and subjective.
- Students should be guided in formulating topics which are appropriate to the unit to be examined.

- Students should be encouraged to show limitations encountered in using the instruments selected to carry out the research and the methodology employed in the report.
- Methodology should speak specifically to design instruments and validate the reasons why they are suitable for the specific research.