MAY 2019 PROFESSIONAL EXAMINATION CORPORATE STRATEGY, ETHICS & GOVERNANCE (PAPER 2.6) CHIEF EXAMINER'S REPORT, QUESTIONS & MARKING SCHEME

EXAMINER'S GENERAL COMMENTS

The May 2019 examination is the last of the examinations ending the old syllabus, after which there is a major transition and transformation of the strategy paper which promises to be more challenging. Unfortunately, the performance of candidates in the May 2019 examination is clear indication that many of our students/candidates may not be up to task with the requirements of the incoming Strategic Case Study Paper (Paper 3.4) of the new syllabus. In my estimation, the pass rate for the May 2019 diet is the poorest recorded, so far as the CSEG (Paper 2.6) of the old syllabus is concerned. The performance of the candidates can best be described as abysmal, very surprising and unprecedented considering the fact that the questions did not depart significantly from the line of questioning in previous examinations. Quite obviously, majority of the candidates who sat for the paper absolutely failed to prepare for the examination. Candidates performance suggest that their preparation level was woefully inadequate and not up to standard. To be blunt, they took the examination for granted. In fact, it is expected of candidates at this level to exhibit a top notch understanding of the fundamental principles underpinning Corporate Strategy, Ethics and Governance, considering the fact that they ought to have been exposed to majority of the issues contained therein from other courses.

STANDARD OF THE PAPER

Overall, the standard of the paper was high and reflected the exact contents of the syllabus. It could be described as comparable to the papers previously administered by the Institute. Undoubtedly, candidates needed more time than usual to answer the questions for a total of 40 marks.

Going forward into the new syllabus, this should be a wakeup call for both instructors and candidates since the new regime promises to be more challenging and engaging. Both instructors and candidates should endeavor to intensify teaching and learning in order to perform better in the new Strategic Case Study (Paper 3.4). Specifically, they should delve deeper into the concepts contained in the syllabus by reading further from other references as provided in the list of references, and not solely depend on the manual provided by the Institute. The sole dependence on the Institute's manual on CSEG is still a major contributing factor for the poor performance of many candidates in CSEG paper. For instance, a better appreciation and effective answering of Question 1 (case study) and Question 4 (corporate governance failure of banks) required an in-depth understanding of the underlying discussions in the media regarding failure of financial institutions in addition to the textbook. Both instructors and candidates are also to endeavor to bring their expertise and learning from other courses to bear on the Strategic Case Study paper. As I have indicated in previous reports, CSEG paper has been a capstone subject, which integrates all the subject areas in the professional programme. In the new syllabus, this is going to be more pronounced. Candidates especially should go into the Strategic Case Study (Paper 3.4) against the backdrop that every prior learning from other subject areas is in preparation towards the Paper 3.4.

NOTABLE STRENGTHS AND WEAKNESS OF CANDIDATES

The unprecedented poor performance of candidates in the May 2019 examination makes it extremely difficult to make comments about any notable strengths and weaknesses of the candidates. Notwithstanding, candidates generally performed strongly (albeit moderately) in questions which bothered on corporate governance and ethics and corporate social responsibility (specifically Question 4 and Question 6).

Furthermore, candidates performed creditably well on Question 5, which bothered on benefits and challenges of acquisition. Inferring from the general pass rate, it can be judged that not a very significant number of candidates performed strongly on a question by question basis. The strengths were not very wide spread amongst candidates compared to the November 2018. The strong performance in these areas could be attributed to the consistency in examining candidates in these areas over an extensive examination period, in addition to the fact that instruction and learning of those topics were possibly intensified and appreciated by candidates. Also, the recent banking crisis and the discussion on-going could be a reason why the candidates could appreciate and answer very well questions bothering on corporate governance and internal audit and control (since it specifically related to the financial services sector).

The notable weaknesses were found in the case study (Question 1) and Question two (2) – Conflict of interest and organizational design. Candidates' performance on these questions could best be described as a disaster. It is quite disturbing that majority of the candidates struggled with the quantitative aspect of the case study. In this particular instance, majority of the candidates failed to correctly compute a straightforward net present value for a company (Question 1d). Also, majority of the candidates couldn't satisfactorily answer a basic question that bothered on a simple matrix organizational structure. Quite pathetic, but majority of them couldn't even draw a simple structure depicting the matrix organizational design (Question 1c). What was more shocking was the fact that majority of the candidates failed to correctly identify issues relating to the macro environment of the business (to be precise, economic, legal and social issues), even though the case study was not bereft with enough information Question 1a).

Question 2 was the least answered question. This could be attributed to two things. First, candidates failed to understand the requirement of 2a. Instead of explaining what fiduciary duties of directors are as it bothers on conflict of interest, many candidates merely explained conflict of interest and left the substantive question unanswered. Secondly, majority of candidates who attempted Question 2 seemed to have no idea what

was being required with respect to 2b. The question was a direct quote from the CSEG textbook and thus, it was obvious that any candidate who failed to thoroughly read the textbook could not possibly understand the requirement to effectively answer the question. Going forward, instructors should be advised to intensify teaching bothering on the environment of business and engage students more in solving lots of case study/scenario-based questions. Candidates should also be encouraged to read, listen to, and watch general news and more specifically business news in order to appreciate the environment of business and be able to effectively answer case study questions. The reason for the weaknesses in the case study may be attributed to lack of qualified

The reason for the weaknesses in the case study may be attributed to lack of qualified professionals to teach the subject coupled with failure on the part of candidates to read the text and pay particular attention to the business environment.

It must be noted that CSEG is a technical subject that encompasses many areas of business and thus, should not be taken casually by both instructors and candidates. There is the need to ensure that instructors who teach the course are highly qualified and technical persons. In addition to the Institute's manual on CSEG, both instructors and candidates should endeavor to read other references to broaden their understanding of the issues in the syllabus. These, when adhered to, should enhance the proper understanding of candidates to confront the paper in future examinations.

QUESTION ONE

Waste Management in Ghana

Ghana has been battling with domestic and industrial waste for many years and successive governments made it one of the topmost priorities to address the menace. However, all the well-intended measures adopted in the past have not yielded significant result in addressing the waste menace. The current government which assumed office in January 2017 created a new ministry, Ministry of Sanitation and Water Resources, in a bid to give new impetus to the waste management agenda. Two years on, the general public verdict is that much has not changed as heaps of waste can be seen in every nook and cranny of the major cities in the country. The President has the vision to make Accra, the nation's capital city, the cleanest within the sub-region but the vision is deemed to be far from realisation. It is estimated that Ghana generates 1.7 million tonnes of waste per year and Accra alone generates 3000 tonnes of waste per day.

It also appears that the state has lost the battle on the desecration of the country's major beaches with litter and open defecation in abundance. The other national monuments such as colonial forts and castles along the coastal belts have not been spared. These areas are major tourist attraction centers and the negative financial consequences cannot be overemphasized. A popular river, River Odorna, which runs through the national capital has been silted with plastic and organic waste, displacing the water which runs through it and terminate in South Atlantic Ocean. The nation has not recovered from the twin disaster of flood and fire which claimed over 100 lives when River Odorna was overflooded. This resulted in nearby petrol filling station being flooded and with oil displaced fire from unknown source that triggered massive fire killing all the people who had taken refuge there.

The current national policy on waste management is based on decentralisation to the various Metropolitan, Municipal and District Assemblies (MMDAs) who are the sub-national organs responsible for administration of various urban, peri-urban and towns in the country. The MMDAs manage waste within their jurisdiction by signing contracts with various privately-owned waste management companies and to some limited extent MMDAs-owned trucks which has proven to be less effective with frequent break downs of those trucks. The waste so collected is disposed at various landfill sites constructed by the MMDAs but most of those sites are now full and are turning into mountains of waste. The hosting communities of landfill sites are up in arms for their closure as health and environmental negative impact takes a heavy toll on the residents. There is currently pending a plethora of law suits by affected residents to get the courts to force MMDAs to shut down the landfill sites.

The citizens engage in indiscriminate disposal of waste everywhere in the country. The culverts, drainage systems and streets are suffocating under the pressure of waste especially that of plastic. Rubbish are thrown onto the streets from moving commercial and private vehicles alike. At various lorry stations where dustbins are provided, drivers' mates dispose waste to the floor where cars are parked. Citizens build up wastes in front of their houses day time and by the following morning those waste have vanished. It has been established that a number of residents are beginning to dispose waste into gutters and shoulders of major roads

at night. Although, all MMDAs have punitive fines and sanctions in their bye-laws nobody seems to suffer any consequences engaging in littering.

Waste Management Sector

The waste management sector has a number of actors including a few large companies with large concessions and a lot of trucks for waste collection and disposal, MMDAs with their internal waste collection units, small companies with few trucks and hence limited concessions, and recently individuals with tricycles, without concessions, have emerged to cater for unserved new residential areas springing up at the outskirts of the cities. The large companies have a fleet of garbage trucks with capacity to collect huge tonnes of waste within their concession areas. Thus, the large companies are better resourced and able to do mass collection of waste. Many small companies with few garbage trucks are actively involved in waste management effort and are generally granted concession over smaller areas. Despite the collective effort by large and small companies as well as MMDAs, large amount of waste remains uncollected and in fact the amount of waste generated is on the rise. This situation has led to individuals using tricycles to collect waste from households for a fee.

The waste management companies get paid in two ways – directly by households and companies that have been provided waste bins and containers and indirectly by MMDAs for the picking of waste containers provided at vantage points for use by market centres, lorry stations and households that may not subscribe to direct service. Payments to waste companies are persistently in several months of arears with serious implications on their financial positions. This situation has resulted in irregular collection of pool waste containers with attendant consequence of mounting waste in urban centres.

The Group and Company

One of the major large companies operating in the waste sector is Waste Tiger Ltd and is part of Omega Group Ltd (OGL) of Companies. The other subsidiaries under OGL include Sewerage Systems and Medical Waste Treatment Ltd, GCD Diamond Ltd, JB Plant Pool Ltd, ACB Bank Ltd and Recycling & Compost Plant. A brief description of the business of each of the subsidiaries follows:

Waste Tiger Ltd (WTL) – is involved in collection of solid domestic and commercial waste in various MMDAs across the country.

Sewerage Systems and Medical Waste Treatment Ltd (SSMWT) – handle liquid and medical related waste across the major cities.

GCD Diamond Ltd (GDL) – a mining company involved in extraction and processing of raw diamond which was added to the group 4 years ago.

JB Plant Pool Ltd (JPPL) – leading supplier of heavy duty and earth moving plant and equipment, buses and renders total service support for all products sold in case of faults or breakdowns.

ACB Bank Ltd (**ABL**) – is an indigenous financial institution providing retail, corporate and treasury services to diverse clients.

Recycling & Compost Plant (RCP) Ltd – is involve in recycling of waste, export of waste and production of fertilizer for local market.

The Group CEO, Mr. Joseph Quainoo is not enthused at the rising cost of the group and its subsidiaries due to duplication of functional areas within each subsidiary. He wants to reconfigure the existing organisational structure in which there will be dual line of reporting and responsibilities. The CEO wants a structure that combines functional specialisms (marketing, finance, Human resource and Information technology) and the subsidiaries and by so doing eliminates subsidiary-specific functional areas. Again, the structure should result in keeping subsidiaries largely independent but with necessary intervention with respect to functional activities.

The Group CEO wants to do performance analysis of the various subsidiaries based on the extent of cash generated and used by respective subsidiaries. The group Chief Finance Officer (CFO) was tasked and has generated a summary of cash inflows and cash outflows for each subsidiary. The cash flow information is summarised in Exhibit 1 below:

	Cash inflow	Cash outflow	Net Cash Flow	
Subsidiary	GH¢' million	GH¢' million	GH¢' million	
Waste Tiger Ltd	95	(98)	(3)	
SSMWT Ltd	30	(70)	(40)	
GCD Diamond Ltd	10	(11)	(1)	
JB Plant Pool Ltd	150	(145)	5	
ACB Bank Ltd	160	(40)	120	
RCP Ltd	25	(100)	(75)	

Exhibit 1

The Group CEO wants a portfolio matrix constructed to analyse the various subsidiaries and advice on strategic option to pursue for each subsidiary so as to inform resource allocation within the group.

Recycling & Compost Plant (RCP) Ltd

RCP Ltd is the latest subsidiary incorporated and commenced business/operations in January 2018. The idea to start RCP Ltd followed from a waste management conference Mr. Joseph Quainoo attended in China and his encounter with the CEO, Chun Juan, of the largest waste management company in China. At the said private meeting Chun shared the idea of how lucrative recycling of waste is becoming, the fact that China is importing waste and how

fertilizer is being produced from waste. Armed with this information and the absence of waste recycling in Ghana, Mr. Quainoo decided to venture into that segment of waste management.

RCP Ltd has three major lines of business – production of organic fertilizer from organic waste, plastic from plastic waste to be sold to plastic processing companies and finally process some organic and plastic waste for export to China. The establishment of RCP Ltd is the first significant intervention to change traditional use of landfill sites in waste management to waste recycling which is more sustainable and also generate economic activities. Although, various governments have always proposed to set up a recycling plant but that never materialised. Perhaps, the inertia and apparent lack of commitment by governments to build recycling plant is because it is capital intensive. The company has a combined permanent and contract workforce of 570 and as business picks up, more hands would be engaged. Kindly refer to *exhibit 2* for the data that was used in performing investment appraisal. The current capacity of the company only allows it to process 30% of total waste generated in the capital city. The vision of Mr. Quainoo to is to expand to all the major cities in the country.

Exhibit 2

The plant and equipment and all related cost necessary to make it operational has been pegged at $GH \notin 1,500,000$. This recycling plant has an expected life of five years, after which it would have to be replaced and will have no residual value at the end of this period. The plant can produce and process a maximum of 75,000 tonnes of waste per year over five years. The revenue per processed ton is $GH \notin 110$. To ensure that the maximum output is achieved, the company will spend $GH \notin 250,000$ a year in maintaining the plant over the next five years.

Based on the maximum output of 75,000 tonnes per year, the following expected costs per ton excluding the maintenance costs above are: waste and treatment material GH¢32.5, labour GH¢27.5 and overhead cost GH¢42.5. The following information is also relevant: The waste and treatment materials figure above include a charge of GH¢10 for treatment (chemicals) materials that is currently being stocked by one of the subsidiaries in the group and can be used for waste treatment. Each ton of waste requires 1,000 liters of the chemicals and the charge is based on the original cost of GH¢5 per 500 liters for the chemicals. It is a material that is currently used in one of the other subsidiary and the cost of replacing the chemical is GH¢7.50 per 500 liters. The chemical could easily be sold at a price of GH¢6.25 per 500 liters.

The labour cost relate to payments made to employees that are directly involved in recycling the waste materials. The labour cost include some employees who have no work at present and if there were no production, they will be made redundant immediately at a cost of $GH \notin 1,150,000$. However, if production takes place, the employees are likely to find another work at the end of the five-year period and so no redundancy costs will be incurred. The overhead cost includes a depreciation charge for the new machinery and equipment. The policy of the business is to depreciate non-current assets in equal instalments over their expected life. All other overheads included in the above figure are incurred in recycling.

The company uses a cost of capital of 20% to assess projects. The management of the company is interested in determining the net present value of the recycling plant and equipment at the end of the five-year period.

Required:

- a) Assess the *legal, economic and social* factors in the environment of the waste management sector in Ghana. (6 marks)
- b) Recommend appropriate *organisational design* that will help the group coordinate and control activities among the subsidiaries. Your recommendations should include THREE (3) benefits and THREE (3) demerits associated with that design. Support your answer with appropriate diagram. (10 marks)
- c) Using an appropriate *portfolio matrix*, explain the various categories of businesses within the Omega Group Ltd and advise the CEO of appropriate portfolio strategy (or strategies) to adopt for each subsidiary. Justify your choice of a particular portfolio matrix and categorization of the subsidiaries based on your selected matrix. (8 marks)
- d) Using information provided on recycling plant and equipment, determine the *net present value* of the project after five years.
 (12 marks)
- e) Recommend FOUR (4) practical and tangible measures government can adopt to deal with the waste menace in the country. (4 marks)

QUESTION TWO

a) Muntaka Property Investments Ltd (MPI) owns a variety of shopping centres and retail units throughout Ghana. Last year, it decided to build a new outlet shopping centre in Adenta, Accra City, in the belief that the opening of the new light-rail line in this area would facilitate customer access to this centre and could attract customers from all parts of the country. To finance this development, MPI decided to sell some of its other properties. One of these properties was a small retail park located within three kilometres off Weija (a large provincial town). Gyeabour, a director of MPI was tasked with overseeing this sale. Within three weeks of the Weija property being advertised for sale, Gyeabour reported that he had received an offer on the property for the full asking price. Delighted with this, the Board of MPI authorised Gyeabour to effect the sale of this property.

However, two months after the sale was completed, it was announced that one of the largest pharmaceutical companies in the world was establishing its global head office on the site adjacent to the former Weija property, and as a consequence of this fact, the value of the property had already increased by an excess of 60%. Upon further investigation, MPI discovered that the Weija property was purchased by Gyasco Properties Ltd., a company wholly owned by Gyeabour's two sons, and that the mother-in-law of one of these sons is a local politician in Weija. Consequently, she would have been aware of the impending purchase of the adjacent property by the pharmaceutical company.

Required:

Describe a director's fiduciary duty regarding *conflict of interest* and determine whether this duty has been breached by Gyeabour in this situation. (10 marks)

b) One of the critical requirements for effective and efficient strategy implementation is a good design of organisational structure which provides means of exercising appropriate controls as well as responding to challenges of rapid change, knowledge management and globalization. Structural design can deeply influence the sources of an organisation's advantage, particularly with regard to knowledge management and failure to adjust structures appropriately can fatally undermine strategy implementation.

Required:

Explain **FIVE** (5) tests you will perform in assessing appropriateness of design of an organsational structure. (10 marks)

QUESTION THREE

a) Asawasi Company, a relatively new company, is in the business of designing and building farm equipment and machinery. Whilst it has been successful in its first few years of operation, sales are now in decline as competition in the industry has intensified and there is greater rivalry between the competing organisations.

A review undertaken by consultants has recommended that in order to gain sustained competitive advantage, the company needs to establish the basis on which it can compete more effectively against its rivals in the future.

Required:

- i) Describe the concept of *competitive advantage* and include references to the different bases Asawasi Company could use to achieve competitive advantage. (5 marks)
- ii) Describe the factors that can create *competitive rivalry* between organisations. (5 marks)
- b) An introduction of a new technology is an introduction of a new business. This is a statement of fact and evidence abounds in many African economies. The introduction of mobile phones came with space to space business and eventually gave rise to mobile money services.

Required:

Using Porter's Five Forces model, identify the competitive forces that influence the state of competition in the mobile money industry and the profit potential of the industry as a whole.

(10 marks)

QUESTION FOUR

a) The banking sector in Ghana has witnessed the withdrawal of licenses of seven indigenous commercial banks by the Bank of Ghana. These banks were in serious financial distress that they had to be taken over by another bank. UT bank and Capital Bank were taken over by the GCB Bank in 2017 because they were in serious financial distress. The Bank of Ghana in August 2018 created the Consolidated Bank Ghana Limited to take over Unibank, Beige Bank, Sovereign Bank, The Royal Bank and Construction Bank for similar reasons.

Different views about who or what was to blame for the crisis have been advanced, but many commentators agree that senior bankers and the Bank of Ghana had failed to recognize the early signs or ignored the indicators until it was too late. When companies collapse, there is often evidence of poor corporate governance.

Required:

Discuss **FOUR** (4) ways in which the difficulties faced by these banks may have been attributable to weak or inadequate *corporate governance* systems. (10 marks)

b) Wakanda Ltd is a listed multinational company which manufactures and sells fruit juice. Last year, Wakanda Ltd received criticism in the national press in Ghana and in other countries as a lot of customers were hospitalized after purchasing some of its fruit juice which was contaminated. This resulted in low patronage in its products and a huge fine by the Government.

The Board of the company believes in improving the relationships with groups such as suppliers, customers and employees in order to regain its reputation. It has come out with the following corporate social responsibility (CSR) in order to correct the shortfall in sales:

- Paying all bills of hospitalized customers and reducing of prices of the products for customers.
- Sourcing high quality raw materials from suppliers and providing suppliers with capital to produce more.
- Using efficient processes and motivating staff for them to give their best.
- Maintaining the highest standard of hygiene and complying with the standards issued by Ghana Standards Board.

Required:

Assess the significance of the CSR stance taken by the Board.

(10 marks)

QUESTION FIVE

You are a Finance Manager who works in the Finance Team of Azugu Gyms (Azugu) and your role includes giving advice on strategic projects and financial matters .Azugu is a family owned business established in 2009 by two brothers. The two brothers invested an initial sum of GH¢300,000 splitting the share capital 50/50, issuing a total of 100,000 shares in Azugu. Azugu was launched with the aim to make gym-based fitness training highly accessible, by removing the obstacles to exercise and making its gyms affordable to most people, open more gyms for accessibility and providing optimum flexibility in offering non-contractual membership. Azugu is currently very popular in Ghana and total membership and new gym openings have grown rapidly since 2009.

Azugu is considering moving away from their organic growth model and have been considering and looking for a potential acquisition. The East Legon Executive Fitness Club is for sale at what seems to be a low price. East Legon Executive Fitness Club has gained a reputation over the past few years for loyal customers and has been rated as 'outstanding' by 95% of its members in 2017. Although the East Legon Executive Fitness Club's annual results are excellent, it doesn't quite fit with the current operations of Azugu. It is a luxury gym group with highly priced membership and high levels of staff/customer interaction. However, its fitness equipment is out of date by the standards of Azugu. There are concerns that when Azugu acquire the East Legon Executive Fitness Club, most of their staff may leave. The staff have expressed concerns that when it acquires East Legon Executive Fitness Club, it may make it a budget gym and are worried about the security of their jobs.

Required:

- a) Discuss THREE (3) strategic advantages and THREE (3) challenges of acquiring East Legon Executive Fitness Club compared with Azugu's usual organic approach to growth within the country. (12 marks)
- b) Identify **FOUR (4)** ways to ensure that East Legon Executive Fitness Club staff remain reassured, motivated and loyal throughout the acquisition process. **(8 marks)**

QUESTION SIX

a) Events Tech is a growing media company that specialises in technological solutions for events planning. Events Tech has recently established internal audit department and the Board is keen for this new department to cover certain broad areas of the organisation and add value to the organisation.

Required:

Evaluate **FIVE (5)** objectives the Board of Events Tech seeks to achieve by establishing an internal audit department. (10 marks)

b) Apusco is an indigenous multinational mining company which undertakes a wide range of mining projects around the world. Apusco has to work with many other organisations and governments agencies in order to manage pollution and protection of the environment. Apusco's mission statement states that '*The basis of our company is built on the values of conducting business in a socially responsible and ethical manner. We respect the law, protect the environment and embark on developmental projects in the community.*'

Apusco's values are included within its Ethical Code of Conduct. Apusco places high emphasis on its ethical and sustainable business practices. It involves employees, suppliers, and the members of local communities in which it operates in its strategic management processes. All these stakeholders are fully trained by Apusco in the Ethical Code of Conduct and they are expected to adhere to it.

Required:

Discuss **FIVE (5)** importance to Apusco for incorporating business ethics and sustainability into its strategic management activities. (10 marks)

SOLUTIONS TO QUESTIONS

QUESTION ONE

a) Assessment of the legal, economic and social factors in the environment of the waste management sector in Ghana.

Legal Factors

- There's a national policy on waste management based on decentralization to the various metropolitan, municipal and district assemblies (MMDAs).
- There's currently a plethora of law suits by affected residents to get the courts to force the MMDAs to shut down the landfill sites.

(2 points for 2 marks)

Economic Factors

- Littering in major tourist attraction centres could discourage tourists which could have financial consequences like reduction I foreign exchange to the country.
- The hosting communities of landfill sites are up in arms of their closure as health and environmental negative impact takes a heavy toll on the residents. This has economic implications as it increases the cost of living of the citizens.
- Exportation by Omega Group Ltd. and importation of equipment have foreign exchange implications for the economy.
- Loss of revenue to the state as a result of decrease in tourists into the country.
- Cost to the MMDAs in terms of waste management.

(2 points for 2 marks)

Social Factors

- The citizens engage in indiscriminate disposal of waste everywhere creates the social implication as their culture and there's the need for punitive fines and sanctions for citizens who engage in indiscriminate disposal of waste.
- A new Ministry created by the current government in a bid to give new impetus to the waste management can be seen as a social intervention by government to curb the waste management menace in the country.

(2 points for 2 marks)

b) Appropriate organisational structure for the Group and their benefits and limitations of the recommended structure

- There are many different organisation structure designs suitable for different strategies and environmental conditions. The common structures include the following: simple structure, functional structure, divisional or multidivisional structure, holding company structure, matrix (composite/combination) structure, transnational structure, team structure, and project structure.
- In the case of Omega Group, the CEO is interested in having centralised functional areas to serve the various subsidiaries in the group. This is to eliminate duplication of

certain functions (marketing, finance, and Human resource and Information technology) across the subsidiaries. The structure required by the group CEO is one that can combine the functional areas with the subsidiaries.

• The structure that is able to achieve that is **Matrix Structure**. A matrix structure combines different structural dimensions simultaneously, for example product divisions and geographical territories or product divisions and functional specialisms. A matrix structure is a combination structure in which the organization is organized along two or more dimensions at once (e.g., business, geographic area, value chain function) for the purpose of enhancing cross-unit communication, collaboration, and coordination.

(2 marks)

Advantages of Matrix Structure

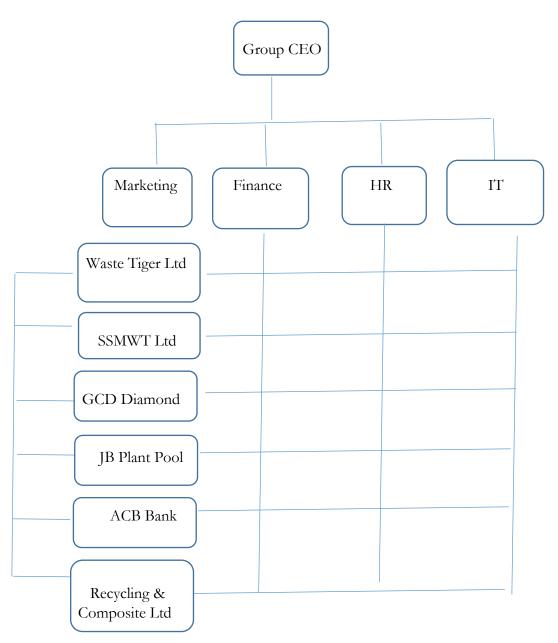
- It promotes knowledge-sharing across the organisation (in this case Omega group) because it allows separate areas of knowledge to be integrated across organisational boundaries. Thus, various subsidiaries and functional areas can share knowledge to help enhance the value of the group as a whole.
- Allows more efficient utilization of resources. Since matrix structure eliminates duplication duplicated functions in the subsidiaries the group would make some savings in terms of staff costs and other related costs
- Matrix structures are flexible, because they allow different dimensions of the organisation to be mixed together. The Omega group has been able to combine subsidiaries with that of centralised functions/specialisms.
- Increases professional development through a broader range of responsibility. The matrix structure leads to higher responsibilities and this presents opportunity for development of human capital for the organisation and in the long run the group stands to benefit.

(Any 3 points for 3 marks)

Disadvantages of Matrix Structure

- Dual-reporting relationships can result in uncertainty regarding accountability.
- Intense power struggles may lead to increased levels of conflict.
- Excessive reliance on group processes and teamwork may impede timely decision making.
- Violates unity of command principle.

(Any 3 points for 3 marks)

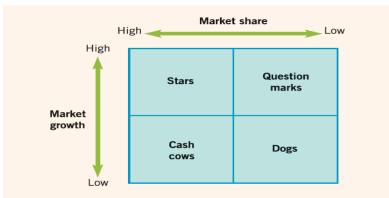


(2 marks allocated for well-drawn diagram)

c) Boston Consulting Group Analysis

The data available on the subsidiary performance is that of cash flows. The portfolio matrix which relies on cash flow from the businesses as the basis for categorization is Boston Consulting Group (BCG) Matrix. The BCG matrix makes use of two dimensional factors in defining a business which are *relative market share* (represents the cash inflows - cash generated by a business) and *market growth rate* (represents the cash outflow- cash use by the business). The relative market share is on horizontal axis while market growth rate is on vertical axis. A combination of the two dimensions on the division of high and low results in four distinct businesses – *star, cash cow*,

question mark and dog. Hence, the subsidiaries within Omega group would be characterised, based on the cash flow characteristics, as star, cash cow, question mark, or dog. The available portfolio strategies are build, hold, harvest and divest.



The growth share (or BCG) matrix

• Star

Star subsidiaries are those with high market share and high market growth. Their high market share implies that they generate lots of cash. However, their high market growth suggest that they require a high level of investment to either increase market share and/or continue being the market leaders. Their net cash flows position will vary from neutral to marginal positive or negative. Thus, they usually exhibit low profitability and may sometimes require support by means of cross subsidization (from Cash Cows) to keep them ahead of the competition. They would eventually become cash cows if their market growth rate declines. Given the cash flow information with respect to Waste Tiger Ltd and JB Plant Pool Ltd, it could be inferred that both companies are stars. Both companies exhibit high cash inflow of GH¢95 million and GH¢150 million respectively as well as high cash outflow of GH¢98 million and GH¢145 million respectively, resulting in the net cash flows of negative GH¢3 million and positive GH¢5 million respectively. However, this assertion is inconclusive considering that the BCG Matrix does not strictly use only information about cash flows to decide which type of business. Notwithstanding, the portfolio strategy for these businesses is a *build strategy* – i.e. a long-term strategy that focuses on long term profitability by making heavy investments in them to grow their market shares.

• Cash cow

Cash cows are those businesses which have a high market share but operate in a matured market (i.e low market growth rate). Their high market share means that they generate lots of cash. Meanwhile, their slow growth or matured market means that their cash outflows are usually low. Thus, they are very profitable businesses which generate high cash inflows but use low cash flows. These businesses have net cash flows of huge positive that gives their corporate entities market power through

cross subsidization. We can infer from the cash flow information of Omega Group Ltd. that ACB Bank Ltd is a likely cash cow since it has very high cash inflows of GH¢160 million but low cash outflows of GH¢40 million resulting in high positive net cash flow of GH¢120 million. The strategic option for this business is *hold* – the group should make the necessary investment to maintain the market share while using excess cash to cross subsidize other businesses within the Omega Group Ltd. portfolio.

• Question mark

A question mark is a business operating in a high growth rate market and possessing a low market share. This business is a direct opposite of star since it generates low cash inflows but makes use of high cash flows. Invariably, it usually exhibits a high and negative net cash flow position. Sewerage Systems and Medical Waste Treatment Ltd (SSMWT) and Recycling & Compost Plant (RCP) Ltd are the two subsidiaries that may be described as question marks with respective negative net cash flows of GH¢40 million and GH¢75 million. The portfolio strategies to pursue are *build* where there are prospects that market share will increase or *harvest* where the market share growth prospects are low.

• Dog

Dog is a business with both low relative market share and a low market growth rate. It generates significantly low cash inflows and may not require significant investments since its market is no longer attractive. GCD Diamond Ltd may be described as a dog within the Omega Group considering that it has both low cash inflows and outflows of GH¢10 million and GH¢11 million respectively. The appropriate portfolio strategy is to *divest* this business from the group.

(2 marks for ever point well explained= 8 marks)

Note:

- The cash flow information given in the data is not sufficient basis to use the BCG Matrix as proper portfolio analysis for Omega Group Ltd. In order not to penalize students unnecessarily, any student who uses any other portfolio analysis matrix to answer this question should be given the benefit of the doubt. The following portfolio analysis matrices may be considered as appropriate answers:
 - The Planning Grid
 - Ashridge Portfolio Display
 - Life Cycle Approach

d) Net present value computation

Net Present Value	[
	Years							
	0	1	2	3	4	5		
Details	GH¢000	GH¢000	GH¢000	GH¢000	GH¢000	GH¢000		
Plant and equipment	(1,500)							
Maintenance cost		(250.00)	(250.00)	(250.00)	(250.00)	(250.00)		
Revenue (GH¢110 per ton)		8,250.00	8,250.00	8,250.00	8,250.00	8,250.00		
Material Cost		(2,625.00)	(2,625.00)	(2,625.00)	(2,625.00)	(2,625.00)		
Labour Cost		(2,062.50)	(2,062.50)	(2,062.50)	(2,062.50)	(2,062.50)		
Redundancy cost saving	1,150							
Overhead cost		(2,887.50)	(2,887.50)	(2,887.50)	(2,887.50)	(2,887.50)		
Net cash flow	(350)	425	425	425	425	425		
Discount factor @10%	1.0000	0.8333	0.6944	0.5787	0.4823	0.4019		
Present value	(350.00)	354.17	295.14	245.95	204.96	170.80		
Net present value	921.010							

(Any 40 ticks @ 0.1 mark = Total of 4 marks)

Workings						
Revenue		8,250	8,250	8,250	8,250	8,250
Revenue per ton		110	110	110	110	110
Tonnes processed		75	75	75	75	75
Material cost		2,625	2,625	2,625	2,625	2,625
Tonnes		75	75	75	75	75
Material cost per unit		35	35	35	35	35
Cost per unit						
Material cost without chemicals in						
store at the other subsidiary						
(GH¢32.5 - GH¢10)	23					

13					
35					
	2,063	2,063	2,063	2,063	2,063
	75	75	75	75	75
	27.50	27.50	27.50	27.50	27.50
	2 000	2 000	2 000	2 000	2 000
	,	,	-		2,888
	75	75	75	75	75
	38.50	38.50	38.50	38.50	38.50
42.50	_				
(4.00)					
38.50					
20%	20%	20%	20%	20%	20%
	35 42.50 (4.00) 38.50	35 2,063 75 27.50 2,888 75 38.50 42.50 (4.00) 38.50	35 - 2,063 2,063 75 75 27.50 27.50 2,888 2,888 75 75 38.50 38.50 42.50 - (4.00) - 38.50 -	35 - - 2,063 2,063 2,063 75 75 75 27.50 27.50 27.50 27.50 27.50 27.50 2,888 2,888 2,888 75 75 75 38.50 38.50 38.50 42.50 - - (4.00) - - 38.50 - -	35

(8 ticks @ 1 mark = 8 marks)

e) Measures to by government to deal with waste menace in Ghana

The following measures should be adopted to effectively deal with waste menace:

- **Complete ban on use of non-biodegradable plastic** the government should pass the necessary legislation to ban the use of plastic in packaging applications including containers, bottles, drums, trays, boxes, cups and vending packaging, baby products and protection packaging. The use of plastic should be criminalized with dire sanctions to send strong message the citizens.
- Strict enforcement of MMDAs by-laws All the MMDAs have bylaws that provide sanctions on indiscriminate disposal of waste in the cities, yet it appears that those laws are not being enforced. It is about time that government comes down heavily on the heads of MMDAs to ensure that the provisions of their bylaws are enforced. Offenders should be taken to courts for appropriate punishment to be exacted and that will send strong message to all.
- **Building of more recycling plants** government should create enabling environment for the private sector to be encouraged to build more of recycling waste. Tax waivers could be provided for private companies importing recycling plant and equipment as well as provide tax holidays to such companies.
- Active education of the public about the necessity for good sanitation. The government can do this through the National Commission for Civic Education (NCCE).
- **Export of waste** conditions should also be created to allow more of the export of waste to countries accepting import of waste.

(4 points well explained for 4 marks) (Total: 40 marks)

QUESTION TWO

a) Director's fiduciary duty regarding Conflicts of Interest:

Directors must not put themselves in a position whereby their personal interests and those of the company are in conflict. This duty is judged objectively and therefore the motives of the directors are immaterial – within the ambit of this duty.

(2 marks)

The following actions by directors are also considered a breach of this duty:

- where directors fail to disclose their interests in company contracts or make a secret profit from company transactions,
- where directors divert business opportunities from the company, or where
- directors act in competition to the company and use confidential information from one business to benefit another business,-

(3 points @ 2 marks each = 6 marks)

In this situation the actions of Gyeabour are in breach, as he had a substantial conflict that he failed to disclose. (2 marks)

b) **The Market-advantage Test:** this test of fit with market strategy is fundamental, following Alfred Chandler's classic principle that "structure follows strategy". For example, if coordination between two steps in a production process is important to market advantage, then they should probably be placed in the same structural unit.

The Parenting Advantage Test: the structural design should fit the "parenting" role of the corporate centre). For example, if the corporate centre aims to add value as a synergy manager, then it should design a structure that places important integrative specialisms, such as marketing or research, at the centre.

The People Test: the structural design must fit the people available. It is dangerous to switch completely from a functional structure to a multidivisional structure if, as is likely, the organisation lacks managers with competence in running decentralized business units.

The Feasibility Test: this is a catch-all category, indicating that the structure must fit legal, stakeholder, trade union or similar constraints. For example, after scandals involving biased research, investment banks are now required by financial regulators to separate their research and analysis departments from their deal-making departments.

The Specialized Cultures Test: This test reflects the value of bringing together specialists so that they can develop their expertise in close collaboration with each other. A structure fails if it breaks up important specialist cultures.

The Difficult Links Test: this tests asks whether a proposed structure will set up links between parts of the organisations that are important but bound to be strained. For example extreme decentralization to profit-accountable business units is likely to strain relationships with a central research and development department. Unless compensating mechanisms are put in place, this kind of structure is likely to fail.

The Redundant Hierarchy Test: any structural design should be checked in case it has too many layers of management, causing undue blockages and expense. Delayering in response to redundant hierarchies has been an important structural trend in recent years.

The Accountability Test: this test stresses the importance of clear lines of accountability, ensuring the control and commitment of managers throughout the structure. Because of their accused of lacking dual lines of reporting, matrix structures are often accused of lacking clear accountability.

The Flexibility Test: In a fast-moving world, an important test is the extent to which a design will allow for change in the future. For instance, divisional domains should be specified broadly enough to allow divisional managers to follow new opportunities as they emerge. As Kathleen Eisenhardt puts it, structures should also have enough 'modularity' (i.e standardization) to allow easy "patching' of one part of the organisation on to another part of the organisation., as market needs change.

(5 points well explained @ 2 marks each = 10 marks)

QUESTION THREE

a)

i) **Competitive advantage** refers to any activity or factor which gives one organisation an edge over its rivals. The edge that an organisation has over its competitors may be viewed from three angles namely superior position, superior skills and superior resources. Organisations should adopt a strategy which is intended to achieve some form of competitive advantage. Doing something better, or more efficiently than competitors should ultimately lead to profitability. If this can be done long term, despite the efforts of competition, then the organisation possesses a sustainable competitive advantage.

(2 marks)

There are three bases on which Asawasi company could use to achieve competitive advantage.

• Cost leadership

This means being the lowest cost producer in the industry as a whole. By producing at the lowest cost, the manufacturer can compete on price with every other producer in the industry and earn higher unit prices.

• Differentiation

This is the exploitation of a product or service which the industry as a whole believes to be unique. This can be achieved via brand image, product special features, marketing techniques etc.

Focus

This involves restricting activities to only part of the market (a segment). This is also known as a niche strategy. There are two ways to achieve this: Providing goods/services at a lower cost to that segment (cost focus) Providing a differentiated product/service to that segment (differentiation focus) (2 points @1 mark each = Total of 3 marks)

(3 points @ 1 mark each = Total of 3 marks)

ii) Organisations that provide a similar product/service aimed at the same target market will experience a certain degree of competitive rivalry. The intensity of competitive rivalry within an industry will affect the profitability of the industry as a whole as price wars and advertising fees reduce the profits of the rivals.

Factors that can create competitive rivalry include:

• Low barriers to entry

Low barriers to entry to the industry increase the number of organisations in that industry and so rivalry is created.

• Market growth

Rivalry is intensified when firms are competing for a greater market share in a total market where growth is slow or stagnant.

• Cost structure

If fixed costs are high, there is short-term temptation to compete on price as any contribution from sales is better than none at all.

• Switching costs

If switching costs are low, ie customers can easily change suppliers, then the suppliers will compete. In some industries, the Internet has increased both the number of suppliers and the ease of switching supplier, for example switching to an online bank.

• Uncertainty

Uncertainty in the environment will increase rivalry. If one firm is unsure what another is up to there is a tendency to respond by developing a more competitive strategy.

• High exit barriers

Exit barriers make it difficult for an existing supplier to leave the industry and as such will fight to maintain market share until they are forced out.

• Strategic importance

If success in a particular market is a prime objective for a number of firms, these firms will be likely to act more competitively to succeed in that market.

(2 points @ 2^{1/2} marks)

b) Porters 5 forces and the competitive forces in the mobile money industry

• The threat of new entrants

New entrants into the mobile money industry will bring extra capacity and more competition.

The strength of this threat depends on:

The strength of the barriers to entry. The amount of capital required to start the mobile money business.

The likely response of existing competitors to the new entrant.

• Availability of a Substitute

A substitute product is a good or service produced by another industry which satisfies the same customer needs. The ability to transact business and to make transfers using online banking on a mobile phone.

• The bargaining power of customers

The bargaining power of customers may force down the profitability providers of mobile money services as customers want better quality products and services at a lower price. Just how strong the position of customers will be depends on a number of factors.

How much the customer pays for the services?

How critical the product is to the customer's own business

Switching costs (ie the cost of switching from mobile money to online banking)

When mobile money service quality is important to the customer, the customer is less likely to be price-sensitive and so the industry might be more profitable as a consequence.

• The bargaining power of suppliers

Mobile money providers can exert pressure for higher prices. The ability of suppliers to get higher prices depends on several factors.

Whether there are just one or two dominant suppliers to the industry, able to charge monopoly or oligopoly prices

The threat of new entrants or substitute services to the mobile money industry The importance of the supplier's service to the customer's business Whether switching costs for customers would be high

• The rivalry amongst current competitors in the industry

The intensity of competitive rivalry within an industry will affect the profitability of the industry as a whole. Competitive actions might take the form of price competition, advertising battles, sales promotion campaigns, introducing new products for the market, improving after sales service or providing guarantees or warranties.

Competition can stimulate demand, expanding the market, or it can leave demand unchanged, in which case individual competitors will make less money, unless they are able to cut costs.

(5 points well explained @ 2 marks each = Total of 10 marks)

QUESTION FOUR

a) Inadequate corporate governance systems

- It is a requirement of good corporate governance that the board of directors should review the effectiveness of the system of internal control (either financial control only or financial, operational and compliance control) and risk management. However, it is quite probable that, in some banks at least, the systems of control were inadequate for their purpose. Perhaps because of the complexity of many aspects of banking, the board of directors might not have had the knowledge or understanding to carry out a sufficient review, with the result that banks were exposed to excessive uncontrolled risk. It would certainly appear that not all banks were fully aware of the business risks that they were taking.
- It is possible that some banks were led by dominant chief executives, board chairpersons and/o majority shareholders, and that the non-executive directors did not act sufficiently well as a counter-balance to the power and influence of the dominant individual or group of individuals.
- Lack of supervisory effectiveness on the part of non-executive directors. A consequence may have been that some banks pursued high-risk strategies without sufficient challenge from the NEDs. This also raises the question about how effective the annual performance evaluations of the NEDs were, and the assessment of what they were contributing to the board and it's decision-making.
- Transparency in financial reporting and other reporting is another aspect of good corporate governance. The financial statements of major banks are complex and difficult to understand even for many experienced investors. The lack of clarity and transparency in financial reporting may possibly have resulted in a situation where shareholders were not properly aware of the financial position of the banks and the security of their investment.
- Lack of adequate knowledge and expertise of board members to effectively supervise management of the failed banks.
- Ineffective or poor independent scrutiny by external auditors.
- Failure of the regulator (Bank of Ghana) to perform its oversight functions effectively and to supervise the behavior of internal actors.

(4 points well explained @ 2.5 marks each = 10 marks)

b)

- The multiple stakeholder obligations stance is that many groups have a stake in what the organisation does.
- This is particularly important in the business context, where shareholders own the business but employees, customers and government also have particularly strong claims to having their interest considered. It is suggested that modern corporations are so powerful, socially, economically and politically, that unrestrained use of their power will inevitably damage other people's rights.

- Under this approach, the exercise of corporate social responsibility constrains the corporation to act all times as good citizen. Particular emphasis is laid on the preservation of employment and protection of the environment.
- **Stakeholder stance** posits that the essence of business primarily lies in building relationships and creating value for all its stakeholders. Though the composition of stakeholders may differ depending on company's industry and business model, the main stakeholders typically include employees, customers, communities, suppliers, and financiers (owners, investors). All these stakeholders are equally important for the company and any trade-off among the stakeholders should be avoided.
- Performance should not be measured simply through the financial bottom line. Long term survival is dependent on social and environmental performance as well as economic (financial) performance, and therefore it is important to take account of the views of stakeholders with interests relating to social and environmental matters.

NOTE: The following points can also be considered as significance of the CSR stance taken by the Board:

- Redeem company's image through damage control.
- Reliable source of supply of inputs to ensure continuity of operations.
- Reduce labour turnover and improve service quality to customers.
- Avoid legal suits and associated costs.

(4 points @ 2.5 marks each = 10 marks)

QUESTION FIVE

a) Strategic Advantages

- One of Azugu's strategic aims is making gyms more accessible to people and to open more gyms in Ghana. East Legon Gyms will help satisfy this aim and is an opportunity for Azugu to achieve growth in gym numbers.
- Synergies are possible whereby Azugu and East Legon Executive Fitness Club reduce their aggregated costs by operating together as one bigger organisation. For example, they may utilize bulk buying discounts or obtain more favourable financing deals as part of a bigger operating unit.
- Also, by sharing ideas and expertise, both elements of the business may find more effective ways of working.
- It also appears that this particular acquisition may be cost-effective as East Legon Executive Fitness Club can be obtained "at a very good price".
- Location advantage may also accrue to Azugu considering the fact that East Legon Executive Fitness Club is located in a very prime area. This may not be easily acquired by Azugu through organic growth.
- Economies of scale by means of equipment purchases and other services sought by the combination of the two organisations.

(Any 3 points @ 2 marks each = 6 marks)

Strategic challenges

- The acquisition of East Legon Gyms is a new type of venture to Azugu. To date Azugu has achieved growth purely organically. It does not have experience of acquisitions and may need to obtain professional advice.
- Any acquisition process can be a concern for staff of Azugu. Unlike organic growth, an acquisition leads to uncertainty and fear, particularly at the target company, and if staff leave as a result, the target can become less valuable.
- Integration problems Differences in organisational culture may not be easy to manage. Through organic growth Azugu can roll out their desired company culture as they proceed. This will be more challenging when acquiring East Legon Gyms and we will have to decide whether we want to change the culture at East Legon Gyms to bring it in line with our Azugu culture.

(Any 3 points @ 2 marks each = 6 marks)

- b) Ways to ensure East Legon Executive Fitness Club staff remain motivated, reassured and loyal throughout the change
- East Legon Gyms staff will need to be reassured, perhaps face-to-face, that Azugu value and intend to keep the luxury, highly staffed approach. Communication should focus on educating staff about the impacts of the change and dispel rumours.
- Azugu may want to back up face-to-face meetings with good quality, regular and transparent electronic communications by email or an intranet to keep staff informed of the process and their part in it.

- Another way of ensuring staff remain loyal and motivated is to involve them in the process. Letting them have their say and giving them roles within the acquisition project will help them to feel part of the new organisation and reassure them they have a future post-acquisition.
- Removing uncertainty through timely and appropriate information exchange is key to preventing staff from searching for alternative employment through fear of their own position within the organisation. Reassuring staff of their long term role by sharing ideas and plans will reduce concerns and may lead to the generation of new and useful ideas that smooth the course of the change.

(4 points @ 2 marks each = 8 marks)

QUESTION SIX

- a) Below are the objectives Events Tech seeks to achieve by establishing an internal audit department
- Review of the accounting and internal control systems. The establishment of adequate accounting and internal control systems is a responsibility of management and the directors. Internal audit is often assigned specific responsibility for the following tasks.
 - ✓ Reviewing the design of the systems
 - ✓ Monitoring the operation of the systems by risk assessment and detailed testing
 - ✓ Recommending cost effective improvements

Review will cover both financial and non-financial controls using the COSO Framework.

- Examination of financial and operating information. This may include review of the means used to identify, measure, classify and report such information and specific enquiry into individual items including detailed testing of transactions, balances and procedures.
- Review of the economy, efficiency and effectiveness of operations (value for money audit).
- Review of compliance with laws, regulations and other external requirements and with internal policies and directives and other requirements including appropriate authorization of transactions
- Review of safeguarding of assets
- Review of the implementation of corporate objectives. This includes review of the effectiveness of planning, the relevance of standards and policies, the company's corporate governance procedures and the operation of specific procedures such as communication of information.
- Identification of significant business and financial risks, monitoring the organisation's overall risk management policy to ensure it operates effectively, and monitoring the risk management strategies to ensure they continue to operate effectively.
- Special investigations into particular areas, for example suspected fraud.

(5 points @ 2 marks each = 10 marks)

b)

- Improving corporate image/reputation/brand loyalty Strong ethical principles that go beyond upholding the law can add value to Apusco in terms of improving its brand. Failure to act ethically can cause social, economic and environmental damage and undermine Apusco's long-term survival. Being such a large, multinational organisation, Apusco's ability to demonstrate strong ethical principles across its whole organisation will help to sustain its future viability. Ethics must be embedded in its business models, organisational strategy and decision making processes.
- Often organisations which adopt strong ethical approaches will also see an improvement in profitability. Although this may not be the main driver for Apusco, it is a consideration in a highly competitive global marketplace.
- By having a range of suppliers which Apusco has trained in its ethical ways of operating, it is investing in the future and can work with them on repeated projects globally. This will tie these suppliers into Apusco and provide a stable working relationship which will deliver cost savings in the long-term. This is a complete contrast to many companies which operate a short term focus and change suppliers regularly or which are let down by non-delivery or poor performance of its sub-contractors. Apusco should not experience these problems and should gain a better reputation with its customers for on time delivery and good quality of work. All suppliers (services and products, such as building materials) will be at the standard that Apusco expects and requires as it has established a good working relationship with the companies it works with. Also, by being ethically responsible, Apusco can reduce its cost by avoiding fines and law suits as well as payment of compensations which are associated with being ethically irresponsible.
- The ethical tone has to come from the top of the organisation. Therefore, it is at a strategic level that the ethical tone is set. The senior managers and business leaders of Apusco must demonstrate an ethical approach by example. This will show that middle and junior managers will be rewarded for taking an ethical stance and create the appropriate organisational culture.
- Apusco places high regard towards ethical and sustainable business practices which appear to be clearly communicated to staff and suppliers and by communicating its positive actions this should assist in achieving its overall business objectives.

(5 points @ 2 marks = 10 marks)