ICAN/201/V/C5 Examination No.....

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA

PROFESSIONAL LEVEL EXAMINATION – MARCH 2020

CASE STUDY

EXAMINATION INSTRUCTIONS

PLEASE READ THESE INSTRUCTIONS BEFORE THE COMMENCEMENT OF THE PAPER

1. Check your pockets, purse, mathematical set, etc. to ensure that you do not have prohibited items such as telephone handset, electronic storage device, programmable devices or any form of written material on you in the examination hall. You will be stopped from continuing with the examination and liable to further disciplinary actions including cancellation of examination result if caught.
2. Write your **EXAMINATION NUMBER** in the space provided above.
3. Do **NOT** write anything on your question paper **EXCEPT** your examination number.
4. Do **NOT** write anything on your docket.
5. Read all instructions in each section of the question paper carefully before answering the questions.
6. All solutions should be written in **BLUE** or **BLACK INK**. Any solution written in **PENCIL** or **RED INK** will not be marked.
7. Your solutions **MUST BE** on the **CASE STUDY** answer booklet.

THURSDAY, MARCH 26, 2020

DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO

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CASE STUDY

Time Allowed: 4 hours (including reading time)

INSTRUCTION: YOU ARE TO USE THE CASE STUDY ANSWER BOOKLET FOR THIS PAPER

This case material is issued prior to the examination to enable candidates familiarise themselves with the case scenario and to undertake any research and analysis as necessary. This pre-seen part of the Case Study examination is also published on the Institute's website: www.ican.org/students.

Candidates **MUST NOT** bring this case material to the Examination Hall. On receipt of the material, candidates are to spend few days to the examination to familiarise themselves with the information provided, carry out additional research and analysis about the industry and analyse the financial information provided in preparation for the examination. Candidates should note that the use of pre-seen part of the Case Study will not significantly help them in their preparation for this examination. It is essential that they carry out adequate study and analysis on their own in order to have a good understanding of the pre-seen part of the case scenario.

At the start of the examination, candidates will receive the complete case scenario which includes both the pre-seen and the unseen and the examination requirements. Candidates must use the answer booklet provided by ICAN in the Examination Hall. Any solution presented with other papers **WILL NOT** be assessed.

Assessment of the Case Study

The marks in the Case Study examination are awarded for professional skills and are approximately allocated as follows:

- Assimilating and using information 20%
- Structuring problems and solutions 20%
- Applying judgement 20%
- Drawing conclusions and making recommendations 20%
- Demonstrating integrative and multidisciplinary skills 10%
- Presenting appropriate appendices 10%

Of the total marks available, approximately 10% is allocated to the relevant discussion of ethical issues within your answer to the requirements. Although ethical issues do not form a specific requirement, as this has been deemed to have been tested in other subjects of the professional examination, but will be tested within a requirement which may include the following areas:

- Lack of professional independence or objectivity;
- Conflicts of interest among stakeholders;
- Doubtful accounting and/or creative accounting practice;
- Unethical business/commercial practice; and
- Inappropriate pressure to achieve a reported result.
-

Candidates should note that marks are not awarded for simply restating facts from the case scenario but are awarded for demonstrating professional skills and technical depth. Therefore, to succeed, candidates are required to:

- Show sufficient evidence of knowledge of the case scenario;
- Be able to carry out appropriate analysis of the issues involved and suggest feasible solutions to the problems identified;
- Demonstrate ability to make informed judgement on the basis of analysis carried out; and
- Generate reasoned conclusions upon which relevant recommendations are made.

A candidate that omits any one of these will have a slim chance of success in the examination.

March 2020 Case Study: OGA Specialist Hospital Limited

List of exhibits

1. About you (Joseph Chima) and your employer, OGA Specialist Hospital Limited.
2. Health care in Nigeria: Opportunities and challenges.
3. OGA Specialist Hospital Limited.
4. OGA Specialist Hospital Limited's information system.
5. OGA Specialist Hospital Limited: Management accounts 2016 – 2018 and 2019 budget.
6. Correspondence from Iwalola to Joseph Chima – FCT OGA Hospital.
7. Summarised capital budget.

Exhibit 1

About you (Joseph Chima) and your employer, OGA Specialist Hospital Limited.

You are employed as a Financial Analyst at the head office of OGA Specialist Hospital Limited which has three hospital units within the Lagos metropolis. You report to Deborah Iwalola, Finance and Administration Director. Your responsibilities include:

- Preparing detailed financial analyses and reports on the performance of the hospital;
- Analysing the hospital's financial statements to identify areas of weakness and proffering likely solutions to correct the anomalies;
- Assessing operational and strategic business proposals to see how each aligns with the hospital's objectives and its impact on its business and financial risks;
- Assessing the hospital's financial and business forecast together with the assumptions upon which they are based to form judgements and recommendations to the board; and
- Drafting reports for the finance and administration director to be submitted to the board on the result of the hospital's financial, operational and strategic business analyses you have carried out.

Your responsibilities demand that you keep yourself abreast with the healthcare industry, both nationally and internationally, so as to be able to carry out the above tasks effectively.

Exhibit 2

Healthcare in Nigeria: Opportunities and challenges

Health, according to World Health Organization (WHO) in 1948, is described as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." By implication this involves a feeling of well-being that is enjoyed by an individual when the body systems are functioning effectively and efficiently together and in harmony with the environment in order to achieve the objectives of good living (World Health Organisation (WHO))

Healthcare in Nigeria

Of all the industries in Nigeria, healthcare is the most pluralistic, as it is split between the public and private sector. According to the World Bank, 3.6% of Nigeria's GDP is spent on healthcare, thereby putting the healthcare market (both public and private) at approximately $14.6 billion. Healthcare in Nigeria is mainly driven by the public sector. Currently, 66 percent of the country's 34,000 health facilities are owned and run by the government.

The private sector is comprised of clinics, hospitals, diagnostics centres, pharmacies, and multi-specialist hospitals that provide a more premium service (compared to the public sector facilities) to those who can afford it.

The private health sector accounts for 70 – 75% of the total health expenditure in the country, meanwhile, most of the larger health facilities with over 100 beds are inadequately-funded public sector facilities (curled from Pharmaceticals & Healthcare in Nigeria: General Overview and Opportunities by Nifemi Aluko (2018).

Structure of Nigeria public healthcare system

Nigeria's public healthcare system is overseen and managed at three distinct levels. The federal government is responsible for tertiary care, which is mainly provided by university teaching hospitals and federal medical centres. Nigeria's 36 states and the federal capital territory of Abuja are each responsible for their own secondary care facilities, mainly in the form of general hospitals, while the 774 local government areas focus on primary health care that is administered primarily through dispensaries. On the surface, the clear delineation of responsibilities by hierarchy should result in greater accountability and fit-for-purpose provision. However, critics of this three-tiered structure argue that it has resulted in budgetary leakages, overlap inefficiencies and blame passing.

Generally, the healthcare system is characterised by a marked discrepancy in the availability and quality of services between private and public facilities and between urban and rural areas. Also, the tertiary and general hospitals tend to be overcrowded because the primary health care centres are functioning below average.

Nonetheless, significant progress has been made in the reduction of life-threatening infectious diseases and there has been an improvement in the performance of key health indices (curled from Opportunities for private companies in Nigeria's Health care sector, and efforts to improve provision by Nigeria, by Oxford Business Group: Nigeria Health Overview, viewed online from oxfordbusinessgroup.com and Healthcare Sector in Nigeria: a General Overview by Nigerian Finder, viewed online).

Challenges of public healthcare system in Nigeria

One of the major challenges with healthcare delivery in the country is budgetary allocation which has been hovering between 5 to 6% of the country's annual budget.

Although the allocation to health is one of the highest, based on value, it is believed that the amount is still far less than what is needed. Also, when compared to the 2001 Abuja declaration where Nigeria and 21 other African nations pledged to commit 15% of their federal budget towards health needs, this is a far cry.

The lack of quality facilities in the country has led to an increase in medical tourism with Nigerians spending as much as $2 billion per annum on outbound medical tourism. The number of Nigerians leaving the country to seek medical treatment abroad is increasing, and this is having a significant impact in terms of lost revenue on the Nigerian economy. The authorities have said that tens of thousands of Nigerians travel every year to the US, UK, India, and other parts of the world to seek treatment for medical issues ranging from kidney transplants, open heart or cardiac surgeries, neurosurgeries, cosmetic surgeries, orthopaedic surgeries, eye surgeries and other health conditions, and even delivering babies. Nigeria's Health Ministry says it is building several world-class health centres to address the issue.

Opportunities for private participation in healthcare delivery

There are both short-term and long-term opportunities in this market, as more consolidation occurs with the private healthcare facilities to establish bigger, well-equipped facilities to match the medical demands of Nigerians. Recently, there has been a rise in HMOs (health insurance service providers), as most patients continue to pay out-of-pocket for services; 72% of total health expenditure is currently out-of-pocket expenditure.

Some of the other short-term opportunities include the supply of properly designed medical devices and equipment to establishments that need these devices and are willing to take on these capital expenditures. Furthermore, foreign entities have the opportunity to capitalise on Nigerians' trust of foreign healthcare systems, as an interested client base already exists (curled from Pharmaceuticals & Health in Nigeria: General Overview & Opportunities by Nifemi Aluko (2018).

With rising levels of disposable income among some segments of society, there is greater demand for private coverage. According to Dr. Abiodun Fatade, "Public hospitals are overstretched and under-funded, which drives down quality and lowers standards. Private hospitals provide patients with a faster, more effective option," Dr Abiodun Fatade, the CEO of Crestview Radiology, told OBG (curled from opportunities for private companies in Nigeria's health care sector, and efforts to improve provision by Nigeria, by Oxford Business Group: Nigeria Health Overview, viewed online).

The introduction of the national health insurance scheme which requires both public and private sectors organisations with 10 or more staff members to contribute 10% of their employees' base salaries to the scheme will provide more opportunities to the populace to seek quality medical treatment from private healthcare providers.

Exhibit 3

OGA Specialist Hospitals Limited

COMPANY HISTORY

OGA Specialist Hospital Limited was founded in 1986 by three friends, Professor John Olayemi, Professor Shehu Garba and Professor Andrew Arochukwu. All are professors of medicine and had worked previously at Federal Teaching Hospital in Lagos. The vision of the three friends is to have a chain of hospitals that is the first choice for healthcare solutions of international standards in Nigeria. Therefore, OGA's message to Nigerians is, "we are committed to clinical excellence and patient care, which is our driving force in the improvement of human life. This forms a big part of our motivation, striving to deliver quality, cost-effective healthcare to the people we serve"

NATURE OF BUSINESS

OGA Specialist Hospital Limited (OGA Hospital) currently has three hospital units within the Lagos metropolis and planning to have a branch of the hospital in Abuja. The hospital, from inception is planned to cater for the high class of the society, most especially, corporate executives, expatriates and upcoming professionals who value healthcare delivery and could afford the cost of a specialist treatment. In Lagos, the hospital has a total of 450 general ward beds and 50 intensive care unit (ICU) beds. The general beds comprise 120 private wards and 330 wards each with at least 2 patients at a time. The wards are distributed among the three hospitals in Lagos as follows:

- Lekki – 50 general wards and 60 private wards;
- Ikoyi – 100 general wards and 40 private wards; and
- Ikeja – 180 general wards and 20 private wards.

The intensive care units are distributed as follows: 10 each in Lekki and Ikoyi; and 30 in Ikeja.

About 80% of OGA Hospital patients are registered under Health Management Organisations (HMOs) and their bills are settled by these HMOs, while the balance are individuals who settle their bills during each visit. The three hospital units in Lagos (including the pharmacies and laboratories located in each) operate as divisions of the same company and are not incorporated as separate companies.

OGA hospitals offer the following specialties:

- Cardiology;
- Critical care;
- Dermatology;
- Endocrinology;
- Gastroenterology;
- General surgery;
- Internal medicine services;
- Neonatal care;

- Nephrology;
- Neurology;
- Obstetrics and Gynaecology;
- Ophthalmology clinic;
- Orthopaedic and trauma;
- Emergency services; and
- General out – patient department.

OGA Hospital has relationship with all the major health management organisations in Nigeria. HMOs have the power to influence where patient care occurs. Tariffs are negotiated annually with these HMOs with regard to charges for the forthcoming year for care to be provided to insured patients. The vast majority of patient bills are settled directly by the HMOs and hence relationship with the HMOs are critical to the on-going success of the hospital. OGA is fortunate that it has a well-established reputation with most HMOs for providing high-quality healthcare services while keeping medical costs under control.

OGA owns the properties from which its hospitals operate.

REVENUE MODEL

OGA charges for patient care according to two different models:
Fixed fee flat rate – a flat rate for specified treatments where the expected course of treatment is highly predictable. The fixed fee for service includes the theatre cost, pharmaceuticals, surgical supplies, laboratory investigations, equipment usage and ward fees. In this revenue model OGA bears the risk of deviations in the cost of surgical procedures (except for the price of pharmaceuticals and laboratory investigations).

Flexible rate – OGA charges the patient for all the costs of care, including ward fees, theatre charges, equipment usage, pharmaceuticals, laboratory investigations and surgical supplies used. OGA bears no risk relating to the length of stay of patients or the cost of surgical procedures.

Approximately 50% of OGA's revenue is derived from fixed rate arrangements and the balance from flexible for service arrangements.

SHAREHOLDERS AND DIRECTORS

The shareholders of OGA at 31 December 2019: Shareholders and % shareholding

Prof. John Olayemi	33.33%
Prof. Shehu Garba	33.33%
Prof. Andrew Arochukwu	33.34%
	100.0%

The directors of OGA are as follows:

Prof. John Olayemi	Chairman/Chief Executive Officer
Prof. Shehu Garba	Executive Director
Prof. Andrew Arochukwu	Executive Director
Dr Philip Andrea	Chief Medical Director
Mrs. Deborah Iwalola	Finance and Admin Director
Dr David Ezeoke	Chief Laboratory Technologist

COMPETITORS

There are six major competing hospitals around Lagos with similar facilities like that of OGA hospitals. These are:

- St. Nicholas Hospital;
- Reddington Hospital;
- Eko Hospital;
- First Consultant Hospital;
- St. Ives; and
- Lagoon Hospital.

These hospitals are able to negotiate preferred network arrangements with the health management organisations and attract higher volumes of patient admissions.

However, OGA hospitals have been adjudged, both nationally and internationally, to be the best hospital in Nigeria. OGA is the only Nigerian hospital accredited by the Joint Commission International, and one of two in Sub – Saharan African to be so accredited. This is a guarantee of safe and quality healthcare that meets international standards.

FUTURE PLAN

At the June 2019 board meeting a proposal to establish a 100-bed facility in Abuja, the Federal Capital Territory (FCT), located on property that will be acquired by OGA Hospital, was evaluated. It was noted that the hospital would require a licence from the Federal Ministry of Health and the FCT Municipal Council before it can commence operations.

The board of directors of OGA Hospital resolved that Deborah Iwalola be tasked with preparing a capital budget for the proposed hospital to evaluate the potential financial returns thereof. Prof. Olayemi has indicated that the new hospital could leverage off the existing head office infrastructure and the only additional costs of running the new hospital would be the direct administration and operating costs.

Exhibit 4

OGA's information system

Most of OGA's accounting and administration functions are performed at its head office in Victoria Island. However, each hospital is responsible for patient admissions and discharges, usage of consumables and theatre, laboratory and pharmacy operations. As many of these transactions are first recorded on paper-based source documents, such data have to be captured onto the computer system by employees at the hospitals. Thereafter all hospital-related transaction data are uploaded in batches to the head office information system every night. Once uploaded, the data are processed to the company's computerised accounting records and used, amongst others, for the billing of patients.

From the Minutes of the October, 2019 board meeting it is apparent that the board of directors of OGA is becoming increasingly anxious about the efficiency and effectiveness of the current information system. The following points were specifically noted:

- The current system is labour intensive and involves the duplication of processes. A system which facilitates the following is therefore considered essential:

  - The centralisation of patient data (which will remove the need for patients to complete patient administration forms on repeat visits and also enhance the inpatient care provided); and
  - The real-time and paperless capturing and processing of details relating to patient hospital stay, dispensing of pharmaceuticals, laboratory investigations, theatre activities and use of surgical supplies.

- Health management organisations are demanding more information from hospitals to enable them to manage their healthcare costs, but with the current information system this cannot be provided as it is not readily available from the system.

The CEO of OGA, Prof. John Olayemi, has previously worked with an enterprise resource planning ('ERP') system in the hospital environment and noted the following key benefits of such systems:

- The centralisation of information for all the hospitals and departments of each hospitals;
- Centralisation of patient information database that can be assessed for the purpose of information sharing amongst doctors and consultants which will lead to improvement in patient care;
- Centralisation of human resources management throughout the hospitals for staff mobility, training and management;

- Overall reduction in operational costs as a result of real life processing of different tasks, such as admissions, discharges, capturing of facility usage and billings; and
- Improved in patients' reception management by having real-time information on bed availability, doctors' schedules and patient locations.

Prof. Olayemi plans to seek approval from the board of directors of OGA to task a group of suitable OGA employees to perform a feasibility study regarding the possible introduction of an ERP system. However, the implementation of the new system (if approved) is only likely to take place at some point during 2020 financial year.

Exhibit 5

OGA specialist Hospital Limited
Management accounts and budget

December year end	Actual 2016 ₦'m	Actual 2017 ₦'m	Actual 2018 ₦'m	Budget 2019 ₦'m
Income statement				
Revenue				
Theatre	348	361	371	409
Accommodation	389	410	440	488
Pharmaceuticals and surgical supplies	295	301	333	359
Equipment income	110	115	119	131
Laboratory	55	63	71	85
	1,197	1,250	1,334	1,472
Other income	8	9	9	10
Pharmaceuticals and surgical supplies	(265)	(274)	(296)	(323)
Laboratory supplies	(14)	(16)	(18)	(22)
Direct operating costs:				
Employee costs	(403)	(414)	(446)	(485)
Catering	(29)	(32)	(35)	(39)
Laundry	(7)	(7)	(8)	(9)
Indirect operating costs:				
Premises maintenance	(74)	(80)	(86)	(93)
Cleaning	(26)	(28)	(30)	(32)
Electricity and water	(15)	(17)	(19)	(22)
Other indirect costs	(67)	(72)	(77)	(83)
Administration costs	(91)	(98)	(105)	(112)
EBITDA	**214**	**221**	**223**	**262**
Depreciation	(34)	(37)	(37)	(38)
EBIT	**180**	**184**	**186**	**224**
Interest income	1	1	1	-
Finance charges	(9)	(9)	(7)	(5)
Profit before tax	172	176	180	219
Tax	(55)	(56)	(58)	(70)
Profit for the year	**117**	**120**	**122**	**149**

OGA Specialist Hospital Limited
Management accounts and budget

December year end	Actual 2016 ₦'m	Actual 2017 ₦'m	Actual 2018 ₦'m	Budget 2019 ₦'m
Statement of financial position				
Non-current assets				
Leasehold building	38	37	33	30
Medical and other equipment	149	144	140	143
Motor vehicles	3	3	3	2
	190	184	176	175
Current assets				
Inventories	18	20	23	22
Trade receivables	119	117	138	133
Other receivables	42	43	44	43
Cash and cash equivalents	30	29	2	6
	209	**209**	**207**	**204**
Total assets	**399**	**393**	**383**	**379**
Share capital	25	25	25	25
Retained earnings	122	152	174	211
Total equity	**147**	**177**	**199**	**236**
Non-current liabilities				
Hire purchase liabilities	79	55	29	-
Bank loan	37	19	-	-
Deferred taxation	11	11	11	11
	127	**85**	**40**	**11**
Current liabilities				
Trade payables	47	50	59	62
Accruals and value added-tax	24	26	27	28
Provisions	9	9	9	9
Income tax liabilities	4	3	4	4
Short-term portion: Bank loan	19	19	19	-
Short-term portion: Hire purchase	22	24	26	29
	125	**131**	**144**	**132**
Total equity and liabilities	**399**	**393**	**383**	**379**

Notes on the income statements:

(1) Catering and laundry expenses are in respect of accommodation;

(2) Employees expenses are allocated as follows:

Theatre	45%
Catering	20%
Pharmacy	30%
Laboratory	5%

Notes to the budget:

(1) Equipment income is in respect of charges for using specialised equipment during surgery and post operation care.

(2) Other income is in respect of rent collected from coffee and snacks vendors who leased space on the hospitals' premises.

(3) The budget is predicated on the continuing outsourcing of catering, laundry and cleaning services in the hospitals. While catering charges varies depending on the occupancy levels per day, laundry and cleaning services are paid fixed amount per month in respective of activity levels in the hospitals.

(4) Electricity and water cost is approximately 80% variable.

(5) Other indirect costs and administration costs are generally fixed in nature.

Exhibit 6

Correspondence from Iwalola to Joseph Chima

From: Deborah Iwalola
Sent: 15 March, 2020
To: Joseph Chima
Subject: FCT OGA Hospital

Dear Joseph,

I know you are under work pressure but there is another issue on which I need your input. The board is seriously considering starting a branch in the Federal Capital Territory (FCT) next year. What I need from you is to review the attached Excel spreadsheet (exhibit 7) to ensure that I have prepared it in a technically correct manner and have not missed any issues.

I compiled the Excel spreadsheet (exhibit 7) based on the information provided by an independent hospital expert that we use from time to time. The board wants some preliminary feedback by next Wednesday, so you may have to do a bit of work this weekend.

We may have to calculate the breakeven revenue for the board on the new hospital. They will probably want to know when this venture will start making profits and how sensitive profits are to revenue levels. Perhaps give that some thought too.

Anyway, happy reading and I look forward to your inputs next week.
Regards

Deborah

Exhibit 7

Summarised capital budget	**Year 0** ₦'m	**Year 1** ₦'m	**Year 2** ₦'m	**Year 3** ₦'m	**Year 4** ₦'m	**Year 5** ₦'m	**Year 6** ₦'m
Acquisition of property, including transfer duty	(70.0)	0	0	0	0	0	0
Licence application and consulting fees	(9.0)	0	0	0	0	0	0
Renovations to existing building	0	(50.0)	0	0	0	0	0
Borrowing costs: Land and buildings before opening	0	(16.2)	0	0	0	0	0
Medical and theatre equipment purchased	0	(100.0)	0	0	0	0	0
Revenue*	0	53.78	230.2	307.88	395.32	493.5	528.04
Pharmaceuticals and surgical supplies	0	(10.76)	(46.04)	(61.58)	(79.06)	(98.7)	(105.6)
Direct operating costs	0	(59.0)	(63.14)	(67.54)	(72.28)	(77.34)	(82.76)
Indirect operating costs	0	(52.5)	(56.18)	(60.1)	(64.32)	(68.82)	(73.64)
Administration costs	0	(48.0)	(51.36)	(54.96)	(58.78)	(62.92)	(67.32)
Head office costs	0	(15.0)	(32.10)	(34.34)	(36.76)	(39.32)	(42.08)
Depreciation	0	0	0	0	0	0	0
Finance charges	0	(10.8)	(9.0)	(7.02)	(4.88)	(2.54)	0
Net cash flow from operations	(79.0)	(308.48)	(27.6)	22.34	79.24	143.86	156.66
Annual revaluation of land and buildings	0	7.2	7.64	8.08	8.58	9.08	9.64
Sale of business (5 x EBITDA in year 6)	0	0	0	0	0	0	783.26
Net cash flow	**(79.0)**	**(301.28)**	**(19.98)**	**30.42**	**87.82**	**152.94**	**949.54**

*Assumes hospital will be in operation during the last half of year 1

IRR	26.4%
NPV @12% hurdle rate	₦240.95m

ASSUMPTIONS	**Year 0**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Number of surgeries		14,940	59,760	74,700	89,640	104,580	104,580
Maximum capacity for patients		149,400	149,400	149,400	149,400	149,400	149,400
Average fixed fee per patient		₦ 3,600	₦ 3,852	₦ 4,122	₦ 4,410	₦ 4,719	₦ 5,049