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ICAN STUDENTS' JOURNAL

JOURNAL FOR STUDENTS OF THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA

Investment Appraisal And Capital Rationing

- ICAN Charges Govt, Other Institutions on Investment in Technology

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Editor's Note

We welcome our readers, both students and non-students to the first quarter edition of your favourite ICAN Students Journal.

Our lead article in this edition is entitled "Investment Appraisal and Capital Rationing". The author, Professor Taiwo Asaolu described capital rationing as a situation where there are insufficient or unavailability of funds to enable an organization to undertake all the projects that yield a positive net present value in its portfolio.

According to him, in such a situation, the firm must attempt to select a combination of investment proposals that will provide the greatest profitability using the limited capital resources available.

He explained further that capital rationing occurs where there is a capital budget ceiling, or constraints on the amount of funds that can be sourced from the capital market during a specified period of time.

He didn't stop at that, he took readers into various sub-topics associated with Capital Rationing such as "Situation where Capital Rationing occur; Causes of Capital Rationing; Types of Capital Rationing; Assumptions in Single Period Capital Rationing; Decision Criterion and Limitations of Capital Rationing.

The article teaches the students how profitability index is used as a determinant to maximize net present value of projects per each money invested.

You will also read in this edition the news items chronicling the various events of the Institute within this quarter.

As usual, we publish some past questions and solutions to guide our students on how to tackle examination questions in future. The detailed reports of all these and other regular columns are contained in this edition.

Corona virus is still raging in our environment. Please keep yourself safe by observing the necessary precautions and health protocols.

Your comments and contributions are welcome. Please contact the Editor via: **editor@ican.org.ng** or **aoowolabi@ican.org.ng**

NEWS

Our Specialised University will Create Opportunities for PG Students

L-R; Dame Onome Adewuyi receiving a souvenir from the representative of the Esama of Benin, Chief Gabriel Igbinedion during her visit to his palace.

The Institute has declared that the specialized University it is planning to establish, which will be known as "International University of Management, Nigeria" is expected to create more opportunities for the numerous postgraduate students seeking to study management courses in the country.

The 56th ICAN President, Dame Onome Joy Adewuyi made this declaration in Benin on Tuesday, January 19, 2021 during a courtesy visit to the home of Esama of Benin Kingdom, Chief Gabriel Osawaru Igbinedion.

She said: "In our drive towards bridging the capacity building gap in the country, we have reached an advanced stage in the establishment of a specialized university to be known as International University of Management, Nigeria. The specialized university is expected to create more opportunities for postgraduate students seeking to study management courses in the country".

Reeling out some achievements of ICAN, Adewuyi said the Institute has over the years contributed to various programmes and plans of government with the sole aim of availing the country of the rich technical and professional expertise of the Institute and its members.

She added that ICAN is a respected voice on the budget process of the country and glad that after several years of our advocacy for early approval of the budget before January of every budget year, the current government has demonstrated commitment to adhering to this global standard.

She further explained that the ICAN Accountability Index (ICAN-AI), launched in 2017, has become an important tool for an annual assessment of Public Finance Management (PFM) practices in the country, adding that the Index was assisting in the promotion of accountability and transparency in the management of our collective resources by all the Ministries, Departments and Agencies (MDAs) of the three tiers of government.

"I am delighted to inform you that the 2019 ICAN-AI Report was publicly presented on December 9, 2020 and the programme was attended by both local and international stakeholders. Indeed, the Index has been endorsed by institutions such as the World Bank, the International Federation of Accountants (IFAC), the Department for International Development (DFID) amongst several others." she expatiated.

At the office of the Vice Chancellor, University of Benin, Professor Lilian Imuentinyan Salami, the ICAN President revealed the cordial relationship existing between ICAN and the University since 1982 when its Accounting department has been under ICAN accreditation, which she said was further strengthened by the signing on of UNIBEN accounting department to the Mutual Cooperation Agreement with Tertiary Institutions (MCATI) of ICAN.

She explained that the MCATI scheme affords graduates of the accounting department to enjoy generous exemptions of ten (10) subjects from the fifteen (15) subjects in the Institute's professional examination.

She also revealed that ICAN recently reviewed the curricula of the National Universities Commission (NUC) and the National Board for Technical Education (NBTE) adding that work has also commenced on the review of the syllabi of the West African Examinations Council (WAEC) and National Examinations Council (NECO).

ICAN Tasks Edo on Syllabus Review for Educational Institutions

The President Presenting the ICAN Accountability Index report to Edo State Governor, Mr. Godwin Obaseki

The ICAN President, Dame Onome Joy Adewuyi has advised the Governor of Edo State, Mr. Godwin Obaseki to set up a special task force to review the relevance of the syllabus of the various educational levels in Edo State.

Adewuyi gave the admonition in Benin on Monday, January 18, 2021 during her courtesy visit to the governor in his office, as part of activities lined up for her working visit to Benin and District Society of ICAN.

She disclosed that ICAN has been proactive in aligning its syllabus with the current realities, adding that the Institute's professional examinations syllabus is being reviewed more frequently to capture emerging trends in the profession, more especially now that the disruptions across all professions are occasioned by technologies.

"Our primary goal is to remain at the forefront of producing future-ready Chartered Accountants for the Nigerian economy. We wish to propose to you, sir, that a task force be established to review the relevance of the syllabi of the various educational levels in Edo State, particularly primary and secondary, to ascertain that they are still effective in meeting the demands of the time," she advised.

She disclosed that the Institute has commenced work on the review of the syllabi of the West African Examinations Council (WAEC) and the National Examinations Council (NECO) of which findings and recommendations would be presented to the appropriate authority as soon as the review is completed.

ICAN Charges Govt, Other Institutions on Investment in Technology, Reveiws NBTE Syllabus

ICAN team at the National Board for Technical Education (NBTE)

The Institute has called on governments at all levels and other institutions charged with capacity building in the country to increase their investments in technology to aid remote learning and facilitate a seamless transition to the New Normal.

This admonition was handed down by the President of the Institute, Dame Onome Joy Adewuyi FCA during her courtesy visit to the Acting Executive Secretary of the National Board for Technical Education (NBTE), Mr. Ekpenyong Ekpenyong in Kaduna to present the report of the review of NBTE Accounting Curriculum conducted by ICAN to the Board.

While observing that all the actors in the tertiary education space must ensure that the syllabu of the various disciplines are still germane in addressing the present challenges, she pointed out that the last syllabus review of the NBTE curriculum for technical education in the country was carried out in February 2004 which obviously was now deficient in meeting the needs of the present time.

She noted that the speed and spate of changes across all professions require a conscious effort by all players in the respective professions to develop strategies that would ensure their continued relevance to the present reality.

Adewuyi explained that there have been a lot of significant changes in Accountancy practice over the years. For instance, Nigeria adopted International Accounting Standards (IAS) and International Financial Reporting Standards (IFRS) for the preparation and presentation of financial statements since 2010 and the Statement of Accounting Standards (SAS) was suspended. However, these changes have not been reflected in the NBTE syllabus.

Similarly, the Companies & Allied Matters Act (CAMA) and other Acts were amended in the course of the year and the NBTE accounting syllabus has not reflected these changes. In the public sector, International Public Sector Accounting Standards (IPSAS) has been adopted to ensure that the financial statements of Government entities are prepared with a uniform standard to make comparison easier and guide investors' decision. This very important standard was also not captured in the 2004 syllabus. All these would have implications on the market-readiness of graduates from the polytechnics she explained.

To bridge the identified gaps under the Institute's capacity building intervention, the President explained that ICAN engaged renowned and experienced members of the Institute to review the NBTE accounting curriculum, both at the National Diploma (ND) and Higher National Diploma (HND) levels. Other areas of improvement recommended in the syllabus by ICAN include trends in technological developments such as Artificial Intelligence, Machine learning, Robotics, Block chain Technology among others.

She assured the board of ICAN's willingness to further engage the NBTE to discuss the essentials of the report and recommendations for the development of the educational sector.

The NBTE Executive Secretary in his response, commended ICAN for taking up the responsibility of reviewing the syllabus and assured that the Board will consider the updates in its next syllabus review exercise and work more closely with ICAN for human capital development in the country.

ICAN Calls for Productive Youths Engagements

ICAN President receiving a plaque from Director General of NYSC Brig. General Shuaib Ibrahim during her courtesy visit to NYSC

The Institute has appealed to the government at all levels to engage youths in the country on national unity and productive engagements to boost human capital development in the country.

The appeal was made by the President of ICAN, Dame Onome Joy Adewuyi at the office of the Director-General of NYSC, Brigadier-General Shuaibu Ibrahim in Abuja on Monday, January 18, 2021 when ICAN President paid him a courtesy visit.

The ICAN President also appealed to the Management of the National Youth Service Corps (NYSC) to include in it's orientation programmes in different camps of the Federation to afford it the opportunity to address corp members on the various initiatives aimed at bolstering human capital development in the country.

"The NYSC has promoted these ideals for over four decades by inculcating in Nigerian youths the spirit of selfless service to the community and emphasizing the spirit of oneness and brotherhood of all Nigerians, irrespective of cultural or social background. In spite of the challenges we currently face as a nation, there is hope that the youths are a rich resource for the transformation of the country. This would only be achieved if their innate potentials are appropriately channeled," she expressed.

She explained further that the COVID-19 pandemic has further intensified the need to deliberately invest in the youth in order to empower them to harness their ingenuity in addressing the social and economic challenges of the country.

"During the peak of the pandemic, a number of the youths engaged more intensely in legitimate online businesses of all sorts, although a pocket of them were also involved in illegitimate activities," she added.

Adewuyi therefore advised that the country must focus on deliberate investments in accessible and affordable Information and Communication Technology (ICT) infrastructure for the Nigerian Youth.

"ICAN, through our Consultancy and Information Technology Faculty, is willing to collaborate with the NYSC in sensitizing the youths on the vast opportunities afforded by the digital revolution in the emerging New Normal," she declared.

Our Resource Centres Are Enabling Environment for Professional Development.

The newly commisioned Chidi Ajaegbu ICAN Centre in Umuahia

The President of the Institute, Dame Onome Joy Adewuyi has declared that the Resource Centres built by the Institute at various locations in the country are created to provide enabling environment for continuous professional development.

Adewuyi gave the assertion in Umuahia at the commissioning of the Chidi Onyeukwu Ajaegbu ICAN Resource Centre on Monday, February 1, 2021.

She explained further that as a profession that acts in the public interest, the Institute's mandate is to produce future-ready Chartered Accountants who will be able to discharge their mandate to the society and their clients.

"To achieve this, it is a precondition that an enabling environment is created for continuous professional development. This is what provided the impetus for the building of this world class Resource Centre to cater for the collective and individual developments of Chartered Accountants and prospective members of the Institute in its environs," she said.

In his remark at the occasion, Ajaegbu said that the ICAN initiative was a clarion call to its members to help deepen the learning and studies of accountancy in their environs, thereby build and enhance the educational capacity of the citizens.

He stressed further that the initiative was also a sign-post for mentorship and role modeling for the benefit of the younger generation.

He therefore appealed to well-meaning citizens of Abia state to contribute to the deployment of the educational needs of its citizens by encouraging and motivating them with resources at their disposal for a better foundation for the

Monarch Advocates Return of Accounting Study to Universities of Agriculture

The President and her entourage at the palace of Alake of Egba land, Oba Adedotun Gbadebo during her courtesy call to the monarch

The Alake of Egbaland, Oba Adedotun Gbadebo, has called on the Institute of Chartered Accountants of Nigeria (ICAN), to work with the Federal Ministry of Agriculture to return the study of Accountancy and other Management Sciences to Universities of Agriculture in Nigeria.

He made the call when the members of the Institute led by the ICAN President Dame Onome Joy Adewuyi paid him a courtesy call on Friday, February 19, 2021 at the Ake Palace in Abeokuta, Ogun State.

The monarch noted that Agriculture is beyond farming but a full fledged Business which requires adequate financial knowledge on the part of practitioners for the Country to reap the full benefits.

The federal government through the ministry of Agriculture recently scrapped all non agric courses from the universities of Agriculture nationwide to allow the Institutions concentrate on the study of Agriculture.

In her response, the ICAN President assured the monarch that CAN has always been collaborating with governments and other stakeholders to find solution to the challenges facing the nation. She promised that the Institute would continue with the collaborative approach among all relevant individuals and institutions in the country.

“Our indigenous knowledge should no doubt be leveraged in developing policies and programmes that would speak directly to the peculiarities of the Nigerian situation. The Institute will continue to engage with the various arms of government to address the social and economic challenges hindering the country’s growth”.

“Our public interest mandate motivates us to pursue these advocacy agenda with renewed vigour. We contribute regularly to topical national issues bordering on the accounting profession, the economy, governance, among others,” she added.

Speaking further, Adewuyi explained that over the years, ICAN has contributed to various programmes and plans of government with the sole aim of availing the country of the rich technical and professional expertise of the Institute and its members. She said: “We are a respected voice in the budget process of the country and glad that, after several years of our advocacy for a January to December budget year, the current government has demonstrated commitment to adhering to this global best standard. We hope that this would be sustained as it is critical to achieving any development plan of government”.

She stated that one of the ways by which ICAN is supporting its members in Small and Medium-Sized firms, is to grow their businesses by providing them with requisite technical support and knowledge through various trainings.

As a public interest mandate, she said the Institute in 2017 launched the ICAN Accountability Index (ICAN-AI), which has become an important tool for the annual assessment of Public Finance Management (PFM) practices in the country.

This Index according to her is assisting the promotion of accountability and transparency in the management of our collective resources by all the Ministries, Departments and Agencies (MDAs) of the three tiers of government.

She also disclosed that ICAN has reached an advanced stage in the establishment of a specialized International University of Management, Nigeria (IUMN), adding that the specialized university would address the challenge of thousands of students seeking postgraduate study in management courses such as accounting, finance, economics and business administration but cannot gain admission due to limited spaces in the existing tertiary institutions.

Investment Appraisal And Capital Rationing

By: Professor T.O. ASAOLU

Capital rationing occurs in situations where there is a constraint on the amount of fund that can be invested during a specified period of time. It can also be described as a situation where there are insufficient availability of funds to enable a firm to undertake all the projects that yield a positive net present value in its portfolio.

In such a situation, the firm must attempt to select a combination of investment proposals that will provide the greatest profitability using the limited capital resources available.

Capital rationing occurs where there is a capital budget ceiling, or constraints on the amount of funds that can be sourced from the capital market during a specified period of time.

Situations Where Capital Rationing Occur

1. Where top management pursues a policy of limiting the amount of funds available for capital investment in a period.

2. Where in a decentralized organization, top management has limited the funds available to the divisional managers for investment.

3. Where top management is reluctant to issue additional share capital because share issue may lead to loss of control and dilution of earnings per share.

4. A firm may be constrained not to raise external funds beyond is particular level because of debenture covenants.

CAUSES OF CAPITAL RATIONING

1. SOFT CAPITAL RATIONING:

This is a situation where for various reasons, the firm internally imposes a budget ceiling on its capital budget.

2. HARD CAPITAL RATIONING:

This is a situation where the constraint is imposed externally, such as the inability of the firm to obtain funds from the financial market or because of government policies.

Types Of Capital Rationing

Two types of capital rationing that can be identified are:

1. SINGLE PERIOD CAPITAL RATIONING:

This is a situation where shortage of funds is experienced now but in subsequent periods, funds are expected to be available. Here projects are either undertaken now or forgotten for ever.

2. MULTI-PERIOD CAPITAL RATIONING

This is a situation where the period of capital rationing is expected to extend over a period of time or even indefinitely.

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The emphases of this text will be on the single period capital rationing

Assumptions in Single Period Capital Rationing

1. It assumes that projects can be divided into fractions i.e. a fraction of a project can be undertaken.

2. It assumes project linearity i.e. if half of a project is undertaken, then it follows that half of net present value generatable will be generated i.e. ½ project = ½ Net present value.

3. It treats probabilistic forecasts as being certain.

4. Mutual dependence of projects are ruled out.

5. All outlays occurred in a single period of time so that capital constraint applies only to a single period zero or now.

Decision Criterion

The decision criterion used in a single period capital rationing is the profitability index i.e. to maximize net present value of projects per each Naira (N) invested.

Profitability Index (PI) Or Cost Benefit Analysis (CBA)

This is a measure of profit earned from a project or investment in present value term expressed as a percentage of capital invested. It can be calculated by using either of the following methods.

(a) Net concept - P.I = $\frac{\text{Net Present Value}}{\text{Initial cost}}$

and the project is profitable if P.I > 0

(b) Total concept - P.I = $\frac{\text{Discounted cash Inflow}}{\text{Initial cost}}$

and the project is profitable if P.I > 1

Limitations of Capital Rationing

1. The discount rate used for all time periods is the market based cost of equity capital. This will only be valid if the shareholders do not suffer any form of capital rationing.

2. All projects are assumed to be division and their corresponding net present values are assumed can be reduced to the exact proportion of the project undertaken (i.e. the linearity relationship). However, some projects are not divisible at all, and any rate, if only one half of a project is under taken, it is very much unlikely, that the net present value will be as high and rewarding as to be half of the total.

3. Projects are assumed to be independent and this may not be the case.

4. Project risk is not taken into consideration.

5. There may be under constraints like inflation, limitation on the amount of dividend pay-out ratio etc which the formulation would not have taken into consideration.

6. There may be other investment opportunities not included in the formulation.

7. It is assumed that no projects can be delayed. In practice, this may be management's first means of escaping from a capital rationing problem.

Illustration 1

OMIDIJI FARMS NIG. LTD. has identified the following projects and streams of cash flow.

Project	Year 0 N	Year 1 N	Year 2 N
A	(100,000)	(100,000)	302,410
B	(50,000)	(100,000)	218,070
C	(200,000)	100,000	107,230
D	(100,000)	(50,000)	307,830
E	(200,000)	(50,000)	343,980

The company operates in a perfect market where the appropriate discount rate is 10%.

You are required to advise the managment of the company in the following circumstances.

a. All the projects are independent and divisible. Which project should the company accept?

b. The company faces capital rationing in year 0. There is only N225,000 of finance available. None of the projects can be delayed. Which projects should the company accept?

c. The situation as in (b) above, except that you are now informed that project A and B are mutually exclusive. Which projects should now be selected?

d. The situation as in (b) above, except that you are now told that projects A and B are mutually dependent. Which projects should now be selected?

e. All projects are now independent but indivisible. Which projects should be accepted? What will be the maximum NPV available to the company?

f. All projects are independent and divisible. There is capital rationing in year 1. No project can be delayed or brought forward. There is only N150,000 of external finance available in year 1. Which projects should be accepted?

Solution to Illustration 1

Project A

Year	Cash Flow N	DCF 10%	PV N
0	(100,000)	1.000	(100,000)
1	(100,000)	0.909	(90,900)
1	302,410	0.826	249,719
		N.P.V...	58,891

Project B

Year	Cash Flow N	DCF 10%	PV N
0	(50,000)	1.000	(50,000)
1	(100,000)	0.909	(90,900)
2	218,070	0.826	180,126
		N.P.V..	39,226

Project C

Year	Cash Flow N	DCF 10%	PV N
0	(200,000)	1.000	(200,000)
1	(100,000)	0.909	(90,900)
2.	107,230	0.826	180,126
		N.P.V.........	(20,528)

Project D

Year	Cash Flow N	DCF 10%	PV N
0	(100,000)	1.000	(100,000)
1	(50,000)	0.909	(45,450)
2	307,830	0.826	254,268
		N.P.V..	108,818

Project E

Year	Cash Flow N	DCF 10%	PV N
0	(200,000)	1.000	(200,000)
1	(50,000)	0.909	(45,450)
2	343,980	0.826	284,127
		N.P.V..	38,677

Projects	Cash Outlay N	NPV N	Profitability Index	Rank
A	100,000	58,891	0.59	3rd
B	50,000	39,226	0.78	2nd
C	200,000	20,528	(0.10)	5th
D	100,000	108,268	1.08	1st
E	200,000	38,677	0.19	4th

(a) Where all projects are independent and divisible, all projects with positive net present value should be accepted i.e. projects D,B,A, and E.

(b) Where there is capital rationing in year 0 and find is limited to N225,000.

Rank	Projects	Cash Outlay N	NPV N
1st	**D**	**100,000**	**108,268**
2nd	**B**	**50,000**	**39,226**
3rd	**3/4 of A**	**50,000**	**44,168**
		225,000	**191,662**

(c) The situation as in (b) above, except that you are now informed that projects **A** and **B** are mutually exclusive. Where projects are mutually exclusive, such projects cannot be embarked upon together at the same time, therefore, they have to be grouped differently.

Group 1				Group II			
Rank	Projects	Cash outlay	NPV	Rank	Project	cash outlay	NPV
		₦	₦			₦	₦
1ST	D	100,000	108,268	1st	D	100,000	108,268
2nd	B	50,000	39,226	3rd	A	100,000	58,891
4th ..	1/3 of E	75,000	12,892	4th ..	1/9 of E	25,000	4,297
		225,000	160,386			225,000	171,456

From the above analysis, group II projects are better than projects in group 1. therefore, projects D,A and 1/9 of project E are recommended.

(a) The situation as in (b) above, except that you are now informed that projects A and D are mutually dependent.

Where projects are mutually dependent, the two dependent projects would have to be treated together i.e. it is either they are accepted together.

Since project D is the best of the projects, project A, which is a dependent project on D, would have to be considered along with it.

Rank	**Projects**	**Cash Outlay**	**NPV**
		N	**N**
1st	**D**	**100,000**	**108,268**
3rd	**A**	**100,000**	**58,891**
2nd 1/2 of B		**25,000**	**19,613**
		225,000	**186,772**

(e) Where all projects are independent but indivisible.

Rank	**Projects**	**Cash Outlay**	**NPV**
		N	**N**
1st	**D**	**100,000**	**108,268**
3rd	**A**	**100,000**	**58,891**
		200,000	**167,159**

The balance of funds available for investment is N25,000. If we had invested in projects D and B, idle fund would have been N75,000

(f) Where all projects are independent and divisible and there is capital rationing in year 1. No project can be delayed or brought forward and there is only N150,000 of external fund available in year 1:

Projects	PI = NPV / PV of cash flow in year of rationing		Rank
A	N58,891 / N90,900	= 0.65	4th
B	N39,226 / N90,900	= 0.65	4th
C			1st
D	108,818 / 45,450	= 2.4	2nd
E	38,677 / 45,450	= 0.85	3rd

Project to be accepted would be: Capital needed in year 1

D	50,000
E	100,000

Project C is rather making a saving of N90,900 discounted cash flow in year one.

Illustration 2

GOMINA NIG. has a capital budget of N500,000 for the year to 30th December, 2000. The available projects have been identified and quantified by the Technical Director and works Manager as listed below. The individual projects related probability index has been computed by the financial management team and stated below:

Project	**Initial capital Outlay**	**Profitability Index**
	N	
A	250,000	1.10
B	100,000	0.95
C	200,000	1.25
D	200,000	1.23
E	250,000	1.05
F	100,000	1.20
G	50,000	0.99

You are required to:

(a) determine the projects that the company should invest in;

(b) determine the projects that the company would invest in if there was no capital rationing.

Solution To Illustration Question 2

PROJECT	(a) INITIAL CAPITAL OUTLAY	(b) PROFITABILITY INDEX	[(a)x(b)-(a)] NET PRESENT VALUE	RANK
	₦		₦	
A	250,000	1.10	25,000	4th
B	100,000	0.95	(5,000)	7th
C	200,000	1.25	50,000	1st
D	200,000	1.23	46,000	2nd
E	250,000	1.05	12,500	5th
F	100,000	1.20	20,000	3rd
G	50,000	0.99	(500)	6TH

(a) Investment strategy with a fund limited to N500,000.

Rank	**Project**	**Initial Capital Invested**	**Net present value**
		N	**N**
1st	C	200,000	50,000
2nd	D	200,000	46,000
3rd	F	100,000	20,000
		500,000	**116,000**

(b) If no capital rationing exists, all projects with positive NPV will be selected as follows:

Rank	**Project**	**Initial Capital Invested**	**Net present value**
		N	**N**
1st	C	200,000	50,000
2nd	D	200,000	46,000
3rd	F	100,000	20,000
4th	A	250,000	25,000
5th	E	250,000	12,500
		1,000,000	153,500

Review Question

The Ballistic Division of Olajide Nig. Ltd has a capital budget of N750,000 for year ending 2000. The following capital investment proposals are submitted to its capital investment budgeting committee:

A.......................1.12.......................150,000
B.......................1.18.......................150,000
C.......................1.17....................... 75,000
D.......................1.10...................... 225,000
E.......................1.15...................... 150,000
F........................1.13...................... 150,000
G.......................1.19...................... 300,000
H........................1.21..................... 150,000
I..........................1.22....................... 75,000
I..........................1.16....................... 75,000

The company's cost of capital is 5%. Project B and H are mutually exclusive. Project A and E are mutually dependent.

You are required to determine

(a) the projects which the capital budgeting committee should choose

(b) the opportunity cost of the accepted project.

Solution To Review Question

PROJECT	PROFITABILITY INDEX	CAPITAL OUTLAY	NET PRESENT VALUE	RANK
			₦	₦
A	1.12	150.000	18,000	9th
B	1.18	150,000	27,000	4th
C	1.17	75,000	12,750	5th
D	1.10	225,000	22,500	10th
E	1.15	150,000	22,500	7th
F	1.13	150,000	19.500	8th
G	1.19	300,000	57,000	3rd
H	1.21	75,000	5,750	2nd
I	122	75,000	16,500	1st
J	1.16	75,000	12,000	6th

(a) Group I / Group II

Rank	Project	Capital Outlay	NPV	rank	Project	Capital outlay	NPV
		₦	₦			₦	₦
1st	I	75,000	16,500	1st	I	75,000	16,500
2nd	H	75,000	15,750	4th	B	150,000	27,000
3rd	G	300,000	57,750	3rd	G	300,000	57,750
5th	C	75,000	12,750	5th	C	75,000	12,000
6th	J	75,000	12,000	6th	J	75,000	12,000
½ of (7th + 9th)..	1/2 (A + E	150,000	20,250	¼ of (7th +9th)	¼(A+E)	75,000	10,125
		750,000	135,000			750,000	136,125

Decision: Group II with projects I,B,G,C,J, and a quarter of both A and E should be embarked upon.

(b) The opportunity cost of the accepted projects is the NPV of the other north while projects not chosen.

Rank	Project	Capital Outlay	NPV
		₦	₦
¾ of (7th +9th)	¾ of (A+E)	225,000	30,375
8th	F	150,000	19,500
2nd	H	75,000	15,750
10th	D	225,000	22,500
		675,000	88,125

The opportunity cost is ₦88,125.

SENSITIVITY ANALYSIS

This is the name given to a technique whereby the impact of changes in the value of a key variable is measured to see the significance of this in relation to the decision under consideration.

It is often used as a practical way of considering risk and in this way the key variables are highlighted so that management is aware of the dangers of incorrect estimation and can perhaps make contingency plans in the event of this occurring i.e. it asks the "what if questions".

In other words, it measures the maximum unfavourable change that can be tolerated by a project under consideration. It is used to determine the effect on the profitability of a project of slight changes in any of the variables that constitutes the cash flows.
For example, it could be used to determine how the net present value of a project would react if:
(a) say volume falls by 10%
(b) say direct material costs increase by 5%
(c) say selling price falls by 8%.

Some of the changes in the variables may affect the acceptability of the project while some may not. In a situation where a slight change in the variables making up the cash flow affects the acceptability of a project, such a variable is said to be sensitive. The implication of the sensitive variables is that their estimation requires greater attention because any error in their estimate many spell doom for the project.

SENSITIVITY TECHNIQUES

(a) Sensitivity margin of sales volume:

$$= \frac{\text{NPV}}{\text{present value of contribution}} \times \frac{100}{1}$$

(b) Sensitivity margin of selling price

$$= \frac{\text{NPV}}{\text{present value of sales (N)}} \times \frac{100}{1}$$

(c) Sensitivity margin of direct material cost, wages, overhead or any other cost

$$= \frac{\text{NPV}}{\text{Present value of the cost}} \times \frac{100}{1}$$

(d) Sensitivity of initial outlay

$$= \frac{\text{NPV}}{\text{Present value of initial outlay}} \times \frac{100}{1}$$

(e) Sensitivity of project life

$$= \frac{\text{Project life - Break-even project life}}{\text{project life}} \times \frac{100}{1}$$

Break-even project life is the discounted payback period

(c) Sensitivity of cost of capital

$$= \frac{\text{IRR - Cost of capital}}{\text{Cost of capital}} \times \frac{100}{1}$$

Limitations of Sensitivity Analysis

(1) In the analysis, only one variable is changed at a time. This is not likely to be so in practice.

(2) The actual sensitivity calculations are a matter for the skill and judgement of the decision maker. The decision maker will also depend on his knowledge, background and understanding of the circumstances of a particular decision.

(3) It is not an optimizing technique.

(4) In arriving at any decision, it may be noted that the calculations themselves may imply no likelihood of a particular change occurring.

(5) The method does not give an indication of the probability of key variables or a combination of these occurring for example, the sensitivity analysis may indicate that one key variable may change 25% and another may change by 10%. This suggests that we should concentrate on the latter, but if the former has a probability of occurring of 0.5 and the letter has a probability of 0.01, then clearly the key variable change of 25% is more important.

Illustration

OJINGOLO NIG. LTD is contemplating investing in a project and the following tentative estimates have been made:
Cash outlay…………………….........N100,000
Selling price per unit………......................N30
Marginal cost per unit………...................N20
Discount rate………….…….....10% per annum
Life span……………………..........…..3 years

Year	Sales volume Units
1....................................	4,000
2....................................	6,000
3………………..........	3,000

(a) You are required to sensitize the project on each of the following areas:

(i) Sales prices
(ii) Unit cost
(iii) Sales volume
(iv) Initial cost
(v) Project life
(vi) Cost of capital

(b) Assume that government anti-inflation policy allows sales price to rise by 10% per annum. Unit cost are expected to rise at an annual rate of 20% per annum. What initial cash subsidy would be necessary to retain the viability of the project.

(c) Could the sales volume be treated separately in the analysis?

Solution

Yr	DCF 10%	Sales value of sale	Present	Cost	Present value of cost	Present value of contribution
		N	N	N	N	N
1	0.909	120,000	109,080	(80,000)	(72,720)	36,360
2	0.826	180,000	148,680	(120,000)	(99,120)	49,560
3	0.751	90,000	67,590	(60,000)	(45,060)	22,530
			325,350		216,900	108,450
PV of initial outlay						(100,000)
						8,450

(i) Sensitivity to sales price $= \frac{\text{NPV}}{\text{PV of sales}} \times \frac{100}{1}$

$= \frac{\text{N}8{,}450}{\text{N}325{,}350} \times 100$

$= 2.6\%$

The sales price must not be reduced by more than 2.6% otherwise the project would become unacceptable 47

(ii) Sensitivity to unit cost $= \frac{\text{NPV}}{\text{PV of cost}} \times \frac{100}{1}$

$= \frac{\text{N}8.450}{\text{N}216{,}900} \times 100$

$= 3.9\%$

The unit cost must not increase by more than 3.9% otherwise the project becomes unacceptable.

(iii) Sensitivity to sales volume $= \frac{\text{NPV}}{\text{PV of contribution}} \times \frac{100}{1}$

$= \frac{\text{N}8{,}450}{\text{N}108{,}450} \times \frac{100}{1}$

$= 7.8\%$

Sales volume must not be allowed to fall by more than 7.8 otherwise the project becomes unacceptable.

(iv) Sensitivity to initial outlay

$= \frac{\text{NPV}}{\text{PV of initial outlay}} \times \frac{100}{1}$

$= \frac{\text{N}8{,}450}{\text{N}100{,}000} \times \frac{100}{1}$

$= 8.45\%$

Initial outlay must not rise by more than 8.45% other-wise the project becomes unacceptable.

(v) Sensitivity to project life

$= \frac{\text{Project life - Break even life}}{\text{project life}} \times \frac{100}{1}$

Interpolation method:

	N
If the project life is 2 years:	36,360
PV of contribution for year 1…...	49,560
PV of contribution for year 2……	85,920
less: PV of initial contribution…..	(100,000)
	14,080

$2\text{yrs} + \frac{14{,}080}{14{,}080 + 8{,}450} \times (3-2)$

= 2.62 years

Discounted cash flow method:

Year	Present value of initial outlay and contribution	Cumulative present value of initial outlay and contribution
	N	N
0	(100,000)	(100,000)
1	36,360	(63,640)
2	49,560	(14,080)
3	22,530	8,450

$2 \text{ years} + \frac{14{,}080}{22{,}530} = 2.62 \text{ years}$

$= \frac{3 - 2.62}{3} \times \frac{100}{1} = 12.7\%$

The project life must not be shortened by more than 12.7% otherwi project would become unacceptable.

Discounted cash flow method:

Year	Present value of initial outlay and contribution	Cumulative present value of initial outlay and contribution
	N	N
0	(100,000)	(100,000)
1	36,360	(63,640)
2	49,560	(14,080)
3	22,530	8,450

$2 \text{ years} + \frac{14{,}080}{22{,}530} = 2.62 \text{ years}$

$= \frac{3 - 2.62}{3} \times \frac{100}{1} = 12.7\%$

The project life must not be shortened by more than 12.7% otherwise the project would become unacceptable.

(c)

Sales volume sensitivity margin for year 1

$= \frac{\text{NPV}}{\text{PV of contribution in year 1}} \times \frac{100}{1}$

$= \frac{\text{N}8{,}450}{\text{N}36{,}360} \times \frac{100}{1}$

$= 23.24\%$

Sales volume must not reduce by more than 23.24% in year one. Hence sales volume can be treated separately in the analysis.

Our goal is to ensure success in ICAN exams. We have, therefore, provided solutions to some past questions to guide candidates in future exams. Although these suggested solutions have been published under the Institute's name, they do not represent the views of the Council of the Institute. ICAN will, therefore, not enter into any correspondence about them.

NOVEMBER 2019 DIET FOUNDATION LEVEL EXAMINATIONS
SECTION A: MULTIPLE-CHOICE QUESTIONS (20 MARKS)
INSTRUCTION: YOU ARE REQUIRED TO ANSWER ALL QUESTIONS IN THIS SECTION

Write ONLY the alphabet (A, B, C, D or E) that corresponds to the correct option in each of the following questions/ statements:

1. Which of the following documents will a supplier send to a customer whose invoice was understated?

A. Pro-formal invoice
B. Debit note
C. Credit note
D. Statement of account
E. Cheque stub

2. In which of the following books of prime entry will trade discount be recorded?

A. Pro-forma note
B. Sales day book
C. Purchases day journal
D. Cash account
E. Petty cash book

3. Which of the following combinations of accounting concepts are the fundamental assumptions in the preparation of financial statements?

A. Accrual and double entry
B. Going concern and entity
C. Materiality and consistency
D. Accrual and going concern
E. Going concern and offsetting

4. In accordance with the requirements of IAS-8 - Accounting Policies, Estimates and Errors, which of the following change in method does not give rise to changes in accounting policy?

A. Measurement of PPE from cost to revaluation model
B. Presentation of depreciation from cost of sale to administrative expense
C. Calculation of depreciation from straight line to sum of digit method
D. Recognition of an expense from capitalisation to expensing
E. Reclassification of non-current asset to current asset

5. Which of the following information CANNOT be revealed by a statement of cash flow?

A. The entity's short-term solvency
B. Operating cash position
C. Financial position of the entity
D. Liquidity position of the entity
E. Investing activities of the entity

6. In accordance with IAS1-Presentation of Financial Statements, which of the following is not a component of financial statement?

A. Statement of financial position
B. Statement of value added
C. Statement of changes in equity
D. Statement of cash flows
E. Statement of profit or loss

Use the information below to answer questions 7 and 8
The following is an information extract from the books of accounts of Walling Parking Enterprises, a sole trader:
Trade receivables balance for the period N1,300,000
The chance of collecting 2% of the receivables figure is remote
It is virtually certain that 95% of the balance of the receivables is collectable

7. What is the amount of allowance recognised in the statement of profit or loss?

A. N26,000
B. N63,700
C. N89,300
D. N89,700
E. N98,700

8. What is the net amount of trade receivables recognised in the statement of financial position?
A. N1,110,000
B. N1,201,000
C. N1,210,300
D. N1,274,000
E. N1,300,000

Use the following information to answer questions 9 and 10

The extract from the financial statements of Benchmark Ventures for the year ended September 30, 2019 is as follows:

Capital
Net profit
Drawings
Cash and cash equivalent
Accounts payables
Inventory
Accounts receivables

9. Determine the amount of the current assets

A. N32,000
B. N37,000
C. N 64,000
D. N67,000
E. N107,000

10. Calculate working capital of the business

A. N17,000
B. N30,000
C. N38,000
D. N50,000
E. N67,000

11. Which of the following is not an element of financial statements?

A. Asset
B. Liability
C. Equity interest
D. Income
E. Profit

12. Which of the following is not a book of prime entry?

A. Cash book
B. Purchases journal
C. Trial balance
D. Returns inwards day book
E. Sales day book

13. An Accounts officer extracted a trial balance for the year ended October 31, 2019 and discovered that the debit side exceeded the credit side by N30,000. Which of the following could explain the reason for the imbalance?

A. Sales of N30,000 was omitted from the sales journal
B. Returns inwards of N15,000 was posted to the debit side of the trial balance
C. Discounts received of N15,000 were posted to the credit side of the trial balance
D. The bank ledger account did not agree with the bank statement by a debit of N30,000
E. N30,000 spent on repairs of office equipment was debited to office equipment account

14. The following explains the imprest system of operating petty cash, EXCEPT
A. Weekly expenditure cannot exceed a set amount
B. The exact amount of expenditure is reimbursed at intervals to maintain a fixed float
C. The petty cashier collects revenue on behalf of the organisation
D. A petty cashier receives cash, makes expenses of relatively smallamount and maintains records for the transactions
E. Regular equal amounts of cash are transferred into petty cash at regular intervals

15. Your company's statement of profit or loss for the year ended October 31, 2019 showed a profit of N836,000. It was later discovered that N180,000 paid for the purchase of motor van had been debited to motor expenses account. It is the company's policy to depreciate motor van at 25% per annum on a straight line basis, with full depreciation charged in the year of purchase.
What will be the net profit after adjusting for this error?

A. N656,100
B. N701,000
C. N791,000
D. N971,000
E. N1,016,100

16. Which of the following represents members" interest in a Society or Club?

A. Recurrent fund
B. General reserve
C. Working capital fund
D. Unwinding fund
E. Accumulated fund

17. In which of the following segments of statement of financial position of Institute of Professional Accountants is students' subscription received in advance recognised?
A. Non-current assets
B. Fictitious assets
C. Current assets
D. Current liabilities
E. Intangible assets

18. Which of the following will not affect the agreement of cash book balance and bank statement bank balance?
A. Dishonoured lodgement
B. Cash payments
C. Bank charges
D. Standing order for the payment of annual subscription
E. Error in the bank statement

Use the following information to answer questions 19 and 20
Obi and Ora are partners, trading under the name, Obiora & Co. and sharing profits or losses equally.

The extract from the partnership books for the period ended September 30, 2019 is as follows

Obi Ora
N'000 N'000
Opening capital balances 200 100
Opening current account balances 40 80
Drawings 20 30
Salary 28 24
Interest on capital 10% 10%

Profit for the period amounted to N240,000

19. What is Obi's share of profit for the year?
A. N20,000
B. N28,000
C. N39,000
D. N79,000
E. N89,000

20. What is the balance in Ora's current account at the end of the reporting period?
A. N79,000
B. N82,000
C. N101,000
D. N115,000
E. N163,000

SECTION B: OPEN-ENDED QUESTIONS
(80 MARKS)
INSTRUCTION: YOU ARE REQUIRED TO ANSWER ANY FOUR OUT OF SIX QUESTIONS IN THIS SECTION

QUESTION 1
a. Explain the term trial balance (2 Marks)

b. The balancing of a trial balance does not necessarily mean that such trial balance is error free.

Required:
Using a two-column tabular format, highlight **FOUR** errors that do not affect the trial balance and **FOUR** errors that affect the trial balance. (8 Marks)

c. Using the following list of balances extracted from the ledger accounts of John Thomas Enterprises, the MD/CEO wants you to confirm if the various double entries passed by the newly employed accounts officer were arithmetically correct:

	N'000
Revenue	53,000
Purchases	32,200
Property, Plant and equipment: - Cost	59,000
- Accumulated depreciation	25,000
Inventory as at July 1, 2018	7,800
Interest expense	200
Administrative expenses	7,000
Accrued expenses	400
Distribution cost	8,900
Retained earnings	23,500
Bank overdraft	1,000
Cash and cash equivalent	200
Accounts receivables	9,000
Finance cost	1,000
5% Loan note	5,000
Share capital	10,000
Other components of equity (OCE)	5,000
Accounts payables	2,400

Required:
Extract a trial balance for the period ended June 30, 2019
(10 Marks)
(Total 20 Marks)

QUESTION 2

The objective of IAS-16 Property, Plant and Equipment (PPE), is to make a clear distinction between capital and revenue expenditure, formulate accounting policy for the recognition of PPE and promote consistency in the application of the policy.

Required:

a. Explain briefly the requirements of IAS 16 in relation to subsequent expenditure and subsequent measurement (3 Marks)

b. After the acquisition of item of PPE, an entity continues to incur subsequent expenditure on the item.

Required:
Explain briefly the requirements of IAS 16 in relation to subsequent expenditure and subsequent measurement.
(3 Marks)

c. Ahmed Ventures Ltd acquired an item of plant from Judexco Machine Ltd to facilitate its operations.

The schedule of expenditure for the plant is given below:

	%	**N'000**
Purchase price		48,000
Trade discount applicable to		
the purchase price of the plant	8	
Early settlement discount on the payable amount	5	
Straight line depreciation rate	10	
Other Costs:		
Freight charges		25,000
Pre-production testing cost		15,000
One year maintenance contract		12,000
Staff cost in relation to the use of the machine		8,000
Electrical installation cost		19,000
Concrete reinforcement		9,000
Cost of correcting installation error		17,000
Dismantling and restoration cost		20,000
Staff training in the use of the plant		14,000

Required:
Using the format provided below, classify the above plant costs into capital and revenue expenditure respectively.
Classification of cost into capital and revenue expenditure

Expenditure	Capital	Revenue
N	N	N

(14 Marks)
(Total 20 Marks)

QUESTION 3

The accounts clerk of Jide Electronics is unsure of the difference between bank statement and bank reconciliation statement and has asked for your assistance in this direction

Required:

a. Explain to the accounts clerk, the difference between a bank statement and bank reconciliation statement (2 Marks)

b. The accounts clerk also needs your assistance in order to ensure that the cash book balance of her organisation agrees with the bank statement balance for the month ended September 30, 2019;

She has provided you with the following summary of banking transactions for the period under review:

1. A cheque amounting to **N280,000** received and paid into the bank was not credited by the bank until after September 30, 2019;

2. The cash book balance of the business showed an overdraft of N200,000, while the bank statement balance on the same date indicated that the business had a credit balance of **N1,930,000;**

3. A customer made a direct credit transfer into the business bank account amounting to **N1,140,000** in settlement of trade debt and this was not known until after the receipt of bank statement;

4. A cheque amounting to **N670,000** for the purchase of goods was posted into the cash book as **N760,000;**

5. A cheque of **N1,230,000** dishonoured by the bank remained unreversed in the cash book;

6. Cheque amounting to **N2,680,000** issued to a supplier was presented to the bank on October 08, 2019;

7. The bank statement revealed that there was a dividend of **N580,000** received as investment income

8. The bank transferred the sum of **N200,000** to ICAN, being the payment on a standing order for annual subscription of staff who were writing professional examinations;

9. A cash payment of **N120,000** was posted to the bank column of the cash book;

10. The bank statement indicated that there was charges of **N140,000,** this being the cost of SMS and other bank charges; and

11. A cheque of **N630,000** deposited by Jide was credited to Deji"s account By the bank.

Required:

i. Prepare the adjusted cash book. (11 Marks)

ii. Starting with the balance as per bank statement, prepare bank reconciliation statement for the month ended September 30, 2019. (7 Marks)

(Total 20 Marks)

SOLUTION

MCQ

1.	B	**11.**	E
2.	B	**12.**	D
3.	D	**13.**	A
4.	C	**14.**	C
5.	D	**15.**	D
6.	B	**16.**	E
7.	D	**17.**	D
8.	C	**18.**	B
9.	D	**19.**	D
10.	A	**20.**	E

Tutorials

QUESTIONS 7 AND 8

Trade receivables balance

Allowance for irrecoverable debt (1,300,000*2%)

Allowance for bad debt {(1,300,000-26,000)*5%}

Amount recognised in Profit or Loss

Amount recognised in Statement of Financial position

QUESTIONS 9 AND 10

9 **Current Assets**

Inventory

Accounts receivables Cash and Cash Equivalent

10 Less Current Liabilities

QUESTION 15

Computation of adjusted net profit

	N	N
		836,000
Profit as per account		
Reversal of carrying amount of motor van:	`	
Cost of motor van	180,000	
Depreciation thereon (180*25%)	-45000	
Carrying amount added back to profit Adjusted Profit	135,000	135,000
		971,000

WORKING FOR QUESTION 19 AND 20

	TOTAL
	N'000
Current account B/F	
Profit for the period	240
Interest on capital	(30)
Drawing -	
Salary	(52)
Share of Profit	158

Partner"s Current Account

	Obi	Ora
	N'000	N'000
Opening balance	40	80
Partners' salary	28	24
Interest on capital	20	10
Share of profit 158/2	79	79
Drawings	(20)	(30)
Closing balance	147	163

EXAMINER'S REPORT

- The questions covered the entire areas of the syllabus.
- More than 95% of the candidates attempted the question and performance was above average.
- The commonest pitfall was the inability of candidates to correctly answer questions relating to correction of errors.
- Candidates require good understanding of the double entry principle for better performance in future examinations.

SECTION B

SOLUTION 1

a. TRIAL BALANCE

- A trial balance is a list of all the debit balances and credit balances on the general ledger accounts. If the double entry principles have been applied correctly to all the items in the general ledger, then total of the entries on the debit side should agree with the total on the credit side.

- A trial balance is used to check the arithmetical accuracy of the accounting system. It also serves as

a first step in the preparation of the financial statements.

(b)

S/N ERRORS THAT DO NOT AFFECT TRIAL BALANCE

i. Error of commission
ii. Error of principle
iii. Error of original entry
iv. Compensating error
v Error of omission
vi Complete reversal of Entries

ERRORS THAT AFFECT TRIAL BALANCE

i. Error of casting
ii. Error of transposition of figure
iii. Posting of transaction on the wrong side of ledger
iv. Omission of transaction from books of original entry in the ledger
v. Omission of transaction or wrong posting of transactions from ledger to the trial balance.
vi. Omission of opening balance either in the ledger or trial balance.
vii Extraction of wrong balance from the ledger

ERRORS THAT AFFECT TRIAL BALANCE

i. Error of casting
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vii Extraction of wrong balance from the ledger

JOHN THOMAS ENTERPRISES
TRIAL BALANCEAS AT 30 JUNE, 2019

	Debit	Credit
	N'000	N'000
Revenue		53,000
Purchases Property,	32,200	
Plant and equipment:		
- Cost	59,000	
- Accumulated depreciation		25,000
Inventory as at July 01, 2018	7,800	
Interest expense	200	
Administrative expenses	7,000	
Accrued expenses		400
Distribution cost	8,900	
Retained earnings		23,500
Bank overdraft		1,000
Cash and cash equivalent	200	
Accounts receivables	9,000	
Finance cost	1,000	
5% Loan notes		5,000
Share capital		10,000
Other components of equity (OCE)		5,000
Accounts payables		2,400
	125,300	125,300

EXAMINER'S REPORT

The question tests candidates" understanding of the meaning of the trial balance, nature of trial balance errors and the extraction of trial balance.

More than 95% of the candidates attempted the question and performance was excellent.

Few candidates use the T-format to prepare the trial balance. Candidates should always remember that financial statements have five elements with asset and expenses being on the debit siide while income, equity and liabilities are on the credit side.

Marking Guide	Marks	Total
- Definition of trial balance	1	
- Uses 3of trial balance	1	2
Errors that do not affect the trial balance	4	
Errors that affect trial balance	4	8
Extraction of trial balance		
- Correct title	1/2	
- Debit and credit entries	9	
- One of the total amounts	1/2	10
Total		**20**

SOLUTION 2

Property, Plant and Equipment (PPE)

a. Requirements of IAS 16 on initial recognition of Property, Plant and Equipment

IAS 16 requires that Property, plant and equipment should be initially measured at cost. Cost of PPE consists of the following.

- The purchase price, excluding trade discount but plus any import taxes or non-refundable sales taxes; Plus

- Directly attributable cost in bringing the asset to its present location and condition, by management, for its intended use. Estimated cost of removing and dismantling the assets and restoring the site.

Requirements of IAS 16 on subsequent expenditure and subsequent measurement

b. Requirements of IAS 16 on subsequent expenditure and subsequent measurement

- Subsequent expenditure on PPE should usually be written off to profit or loss as incurred but subsequent expenditure can only be capitalised if it enhances the economic benefits to be derived from the asset.

- After initial recognition, PPE should be measured at cost or revalued amount less accumulated depreciation and accumulated impairment losses.

Classification of cost into capital and revenue expenditure

Expenditure	Capital N	Revenue N
Purchase price	480,000	
Trade discount applicable to the purchase price of the plant	(38,400)	
Other costs:		
Depreciation at 10% (ie,10% of 529,6700)		52,960
Freight charges	25,000	
Pre-production testing cost	15,000	
One year maintenance contract		12,000
Staff labour cost in relation to the machine		8,000
Electrical installation cost	19,000	
Concrete reinforcement	9,000	
Cost of correcting installation error		17,000
Dismantling and restoration cost	20,000	
Staff training in the use of the plant		14,000
Total	529,600	86,960

EXAMINER'S REPORT

The question tests candidates" understanding of the nature of capital and revenue expenditure, measurement of PPE and accounting entries for PPE under IAS 16.

The question was poorly attempted and the candidates" overall performance was below average.
The candidates exhibited lack of knowledge of the requirements of IAS16 on initial recognition and subsequent measurement of PPE. More than 90% of the candidates could not differentiate between capital and revenue expenditure.

The candidates should be encouraged to have extensive study of past questions and good understanding of the relevant accounting standards.

Marking Guide

a	- Measure PPE initially at cost	1	
	- Components of purchase price	1	
	- Definition of attributable cost	1	3
b	- Measurement of subsequent expenditure	1.5	
	- Measurement of PPT after initial recognition	1.5	3
c	- Capital expenditure	7	
	- Revenue expenditure	5	
	- Total under capital and revenue expenditure	2	14
			20

SOLUTION 3

(a) The issues involved in this case are whether or not a company director is entitled to remuneration and whether or not a director is entitled to be reimbursed for expenses incurred in respect of the company"s operations.

(b) On the issue of directors" remuneration, the position of the law is that a company is not bound to pay remuneration to its directors, except it is contained in the company"s Articles of Association or there is a written agreement to that effect. Conversely, the position of the law on reimbursement of directors" expenses is that, a company shall reimburse its directors, all travelling and other expenses related to attending and returning from company meetings.

In this case, YEBA Ltd is not liable to pay remuneration to Bala, as directors" remuneration is not contained in the Articles of Association and, there was no written agreement on payment of remuneration to its directors.

(b) Factors that influence individual ethical behavior in business environment include the following:

i. Individual family influence and background at early age;
ii. Educational attainment and academic exposure of the individual;
ii. Religious inclination of the individual;
iii. Professional affiliation of the individual;
iv. Cultural and ethnic consideration of the individual;
v. Existence of laws that define and regulate societal behaviour;
vi. Peer influences of colleagues and associates;
vii.Nature and structure of the business organisation; and
viii.The existence of clear procedures for punishment for breach of ethical rule.

(c) The legal issues involved relate to frustration of contract and principle of part-performance, also referred to as quantum meruit in law of contract.
Frustration arises when unforeseen circumstances or events, which are beyond the control of the parties, happen, and make it impossible for the parties to perform their contractual obligations under the contract.
Part-performance or quantum meruit is a remedy available to a party who has partly performed his obligation under the contract, to claim the cost he has suffered.

In this case, the contract for furnishing and painting of Chief WADADA"s building by Exclusive Décor Enterprises was frustrated by rain floods, which made it impossible to execute the contract. The contract was thus discharged and both parties are absolved from liability. Exclusive Décor Enterprises cannot succeed in suit to claim the contract sum from Chief WADADA.

However, under the principle of quatum meruit, Exclusive Décor Enterprises, who had incurred costs in delivery of materials to site, all of which were destroyed by rain floods, may succeed to claim the loss suffered on the materials.

EXAMINER'S REPORT

The question tests candidates" knowledge of director"s remuneration and expenses reimbursement, business ethics and part-performance principle (Quantum meruit) under frustration of contract.

Attempt rate was about 65% and general performance was average at about 50% pass rate.

Candidates" major pitfalls were lack of understanding of quantum meruit principle and rules of business ethics.

Candidates are advised to read the ICAN study text properly.

MARKING GUIDE Marks

(a) * State legal issue – director"s remuneration and expenses reimbursement	2	
* Explain legal position on director's remuneration and expenses reimbursement	2	
* Advise Bala – not entitled to remuneration, but can claim expenses reimbursement	2	8
(b) State 4 factors affecting ethical behaviour in business environment (1 mark each)	2	4
(c) * State legal issues – frustration and *quantum meruit*	2	
* Explain legal position on frustration and *quantum meruit*	2	
* Apply to case – contract discharged by frustration and parties not liable	2	
* Advice to Exclusive Decor - can claim *quatum meruit*	2	8
		20

SOLUTION 4

(a) The conditions under which an insolvent company may be placed under receivership are as follows:

i. When a company is unable to repay loans borrowed when due or the interest payable falls into arrears;

ii. If the property or assets of the insolvent company is in jeopardy, or when events occur to reasonably conclude that the debenture holders" interests are under threat;

iii. When the company fails to honour or defaults to fulfill any of its obligations imposed on it by the debenture trust deed;

iv. If any circumstance occurs which prevents the terms of the debenture from realising its assigned or pledged security;

v. If the company is being wound-up as a result of insolvency;

vi. If any creditor of the company issues a process of execution against any of the company"s assets;

vii. If the company ceases to carry on business; and

viii. If secured creditors with amounts that exceed specified amount apply to court for receivership.

(b) Under the Criminal Code, the broad classifications of gratification are as follows:

i. Demand or offer and receipt of things of monetary values.
These include cash gifts, donations of assets, loans, financial rewards, value securities and stocks, discounts, commission, rebates, bonuses,deductions, contracts for supply of goods and services, discharge or liquidation of any loan, financial obligation or liability whether in whole or in part, property or interest in property, whether movable or immovable, any forbearance to demand any money; all with the aim of inducing performance or non-performance of a public official"s normal duties.

ii. Demand or offer and receipt of things of intangible values
These include any offer of employment, grant of public privileges, sexual gratification, award of chieftaincy titles or dignity, benefits in kind, protection from legal proceedings and prosecution, either civil or criminal, etc; all these acts are usually made to induce performance or non-performance of public officials" normal duties

(c) Agency contract may be terminated by operation of the law under the following circumstances:

i. Death of either party;
ii. Insanity of either party;
iii. Bankruptcy of the principal;
iv. Frustration of the subject-matter;
v. Subject-matter is illegal ab *initio*;

vi. Subject-matter no longer exists;
vii. Expiration or effluxion of time;
viii. Subsequent legal incapacity of either party; and
ix. Completion of the work.

(d) The following are essential factors necessary to claim contribution by an insurance company:

i. The subject-matter of the insurance must be the same and common to both the insurer and the assured. It is sufficient if the insured entered into double or multiple insurance and the loss is covered by both insurance policies;

ii. The interest insured must be the same, although both or any of the insurance policies may include other interests, but the loss must be caused by a peril common to both insurance policies;

iii. The same assured must be covered by both insurance policies and which must have been effected by the same assured or by any other person acting for him or on his behalf; and

iv. Both insurance policies must be legally enforceable at the date of the peril or loss. Thus, an expired or invalid insurance policy at the time of the peril will not qualify for contribution.

EXAMINER'S REPORT

The question tests candidates" understanding of company insolvency and receivership, bribery and corruption, agency termination and contribution under multiple insurance.
About 80% of the candidates attempted the question, and performance was good.

MARKING GUIDE

(a) State 4 conditions for receivership.
(b) * Explain gratification
* State 2 examples (1 Mark each).
(c) State 6 reasons for agency termination by operation of law
(1 Mark each)
(d) Explain 3 essential factors for contribution in multiple insurance
(2 Marks each).

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