

**QUESTION 2**

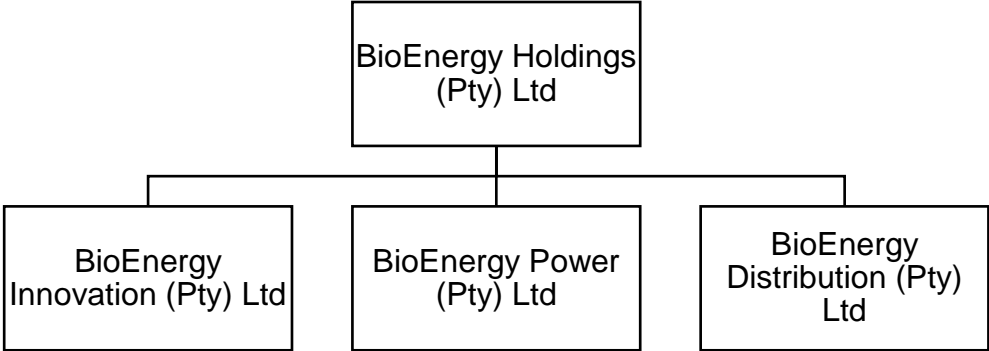
**50 marks**

**Ignore taxation.**

The BioEnergy Group is a group of companies that operates in the sustainable energy solutions industry. The main operations of the group are located in the north-western region of Limpopo and the focus of operations have primarily been the use of biogas for the generation of electricity. Biogas is a gas produced by the break-down (fermentation) of natural substances (organic matter). All companies in the BioEnergy Group have a 30 June financial year end.

**1 Group structure and background**

BioEnergy Holdings (Pty) Ltd ('BioEnergy Holdings') was incorporated in 2006 and has grown into an industry leader in Southern Africa, mainly due to the demand for independent energy solutions in sub-Saharan Africa, as well as international financial support for research and development in the field. The Group's vision is to be the first zero-waste energy provider in Southern Africa. BioEnergy Holdings has been expanding its operations through the following group of entities:



BioEnergy Power (Pty) Ltd ('BioEnergy Power') operates a 10 000m<sup>2</sup> biogas plant that was constructed at a total cost of R108 560 000 during 2008. Renewable resources, such as maize, beetroots and manure, are used as organic matter to fuel the plant. The renewable resources are purchased from local farms. The biogas plant uses a heated fermenter to assist micro-organisms (microscopically small bacteria or fungi) with the decomposition of the organic matter, and the main product of the fermentation process is biogas, which is burned to generate electricity. A by-product of the process is bio-residue, which is sold back to the surrounding farms as high-quality fertiliser. BioEnergy Distribution (Pty) Ltd ('BioEnergy Distribution') sells the electricity directly to Eskom.

All intellectual property is registered in the name of BioEnergy Innovation (Pty) Ltd ('BioEnergy Innovation'). BioEnergy Innovation primarily researches and develops innovations in biogas systems, designs and processes. The company operates from a 2 000m<sup>2</sup> laboratory that was specifically designed for its intended research and development use and was completed in 2011. The laboratory was constructed at a total cost of R34 848 000.

## 2 Patents

### 2.1 OrganoGas™ process

On 1 October 2019, BioEnergy Innovation purchased an incomplete research and development project, OrganoGas™, from Green Solutions (Pty) Ltd. Its objective was to complete the development of the new process design and register it as a patent. OrganoGas™ will be used in the biogas plant.

OrganoGas™ was purchased for R5 835 830, and the purchase price was only payable on 1 October 2021, which was not considered to be within normal credit terms. The project has met the definition of an intangible asset in terms of IAS 38 *Intangible Assets* and has met all the requirements for capitalisation of development costs in terms of IAS 38 on initial recognition.

Further development of OrganoGas™ commenced on 1 November 2019. Between 1 November 2019 and 31 March 2020, BioEnergy Innovation incurred R1 799 000 on further development costs. The further development took place in an exclusive workspace of 200 m<sup>2</sup> in the BioEnergy Innovation laboratory. All costs were paid in cash (unless stated otherwise) and development of the OrganoGas™ process was completed, registered and available for use as intended by management on 1 April 2020. The patent will expire after seven years from date of registration. Based on experience, BioEnergy Innovation expects to renew the patent for a further period of seven years after expiry and the patent renewal costs are expected to be significant.

### 2.2 Fermento™

During the financial year ended 30 June 2020 (FY2020), BioEnergy Innovation started research on a new fermenter design, Fermento™, to be used in the biogas plant. The new design will significantly increase the volume of biogas produced by the plant.

BioEnergy Innovation approached Prof. Mpho Ndlovu, an acclaimed researcher in the field of micro-organisms and its role in the fermentation process, to take up a position with the company. On 1 April 2020, Mpho signed a contract with BioEnergy Innovation for a period of 18 months, specifically to lead the team on the research and development of Fermento™, but also to consult on other projects afterwards. She receives a monthly salary of R73 000.

Two other BioEnergy Innovation scientists, Cliff Abrahams and Anne van Wyk, were also allocated to work exclusively on this project from 1 April 2020 up to completion of the project. Cliff earns R42 000 per month and Anne earns R48 000 per month. Between 1 April 2020 and 1 August 2020, Mpho, Cliff and Anne investigated alternative fermenter designs used in Southern Africa. From 1 July 2020, the team was allocated an exclusive workspace of 250 m<sup>2</sup> in the BioEnergy Innovation laboratory and by 30 September 2020 it was evident that the process was technically feasible. On 30 September 2020, the design and fermentation process were selected and approved, and testing and construction of the fermenter commenced. Between 1 June 2020 and 30 April 2021 laboratory consumables of R2 944 700 had been used evenly in the research and development of Fermento™.

The International Sustainability Fund (ISF) is an organisation located in Sweden. Its aim is to assist with the funding of research and development of sustainable energy solutions. On 31 October 2020, the ISF granted an €100 000 loan to BioEnergy Innovation, specifically for the development of Fermento™. The loan bears interest at a market-related interest rate of 2% per annum and the interest is payable annually in arrears on 31 October of each year. The loan capital is repayable in three equal annual instalments, with the first instalment due on 31 October 2021.

The board of directors met on 31 October 2020 and approved acceptance of the €100 000 ISF loan necessary to continue with and complete the project. The loan agreement was signed on the same date. The board also approved all budgets submitted by Mpho as well as the timeline to register the patent for Fermento™. Fermento™ met all the requirements for capitalisation of development costs in terms of IAS 38 on 31 October 2020.

On 1 May 2021, the development of Fermento™ was completed and the patent was registered. The patent will expire after 20 years from date of registration and is renewable annually, at a nominal fee, starting after the first three years.

### **3 Procurement**

In order to operate the biogas plant, BioEnergy Power needs a continuous supply of organic matter and, in keeping with its vision of sustainable solutions, the directors of BioEnergy Power have opted to uplift the local community by using local service providers. BioEnergy Power entered into agreements ('supply contracts') with logistics companies for the trucks that will be used to transport organic matter from local farms to the BioEnergy Power biogas plant. These supply contracts stipulate the daily tonnage of organic matter that must be delivered to BioEnergy Power at a fixed monthly service fee. The directors are of the opinion that these contracts will hedge BioEnergy Power against unfavourable movements in the fuel price, as each contract is fixed for a period of five years.

BioEnergy Power issued an invitation to tender for the four available contracts, which were awarded by the tender committee. The committee consists of Kobus Vermeulen, the financial director of BioEnergy Power, and Devi Pillay, the chief executive officer of BioEnergy Power. One of the contracts was awarded to Gelden Transport (Pty) Ltd ('Gelden Transport'), an owner-managed company that is wholly owned by Pieter Gelden, the son-in-law of Kobus.

Pieter is a young entrepreneur who saw a gap in the logistics market in the northern Limpopo area. Gelden Transport was incorporated in 2018. Pieter, in his capacity as a director, sourced initial capital for the acquisition of Gelden Transport's fleet of trucks by means of an interest-free loan from BioEnergy Power. The loan to Pieter was solely authorised by Kobus, who felt that the loan was not material in terms of the net value of BioEnergy Power. Pieter used the loan to purchase five second-hand trucks. However, Gelden Transport has not been profitable as the trucks are defective and unreliable. The contract with BioEnergy Power is Gelden Transport's only contract.

The local community has benefitted from Gelden Transport's operations in the area, as the empty trucks are known to give lifts to community members on their way to work and school. There have been rumours that Gelden Transport does not enforce the renewal of their drivers' professional driving permits, as Pieter is of the opinion that the trucks mainly use backroads and the benefit of not having to go through all the administration of renewing driving permits outweighs the risk of a driver getting a fine. Pieter is of the opinion that Gelden Transport already gives back enough to the community by using local garages for fuel as well as repairs and maintenance of trucks.

### **4 Additional information**

- 1 An appropriate pre-tax discount rate is 10% per annum (compounded annually) for all periods presented for transactions denominated in South African rand.
- 2 All classes of property, plant and equipment are accounted for in accordance with the cost model of IAS 16 *Property, Plant and Equipment*, and are depreciated on a straight-line basis.

- 3 Residual values on all buildings are insignificant and useful lives are as follows:
- Biogas plant 20 years
  - Laboratory 30 years
- 4 All classes of intangible assets are accounted for in accordance with the cost model of IAS 38, and patents have a residual value of zero. Amortisation is included in the 'other expenses' line item in the statement of profit and loss and other comprehensive income.
- 5 Fermento™ is a qualifying asset in terms of IAS 23 *Borrowing Costs*.
- 6 The following foreign exchange rates are applicable to the period under review:

<b>Date</b>	<b>EUR1 = ZAR</b>
31 October 2020	16,10
1 May 2021	16,80
30 June 2021	16,90
Average: 31 October 2020 – 1 May 2021	16,50
Average: 1 May 2021 – 30 June 2021	16,70

**INITIAL TEST OF COMPETENCE, JUNE 2022  
PROFESSIONAL PAPER 3**

<b>PAPER 3 QUESTION 2 – REQUIRED</b>		<b>Marks</b>	
		<b>Sub-total</b>	<b>Total</b>
(a)	<p>Provide the journal entries (cash transactions included) to account for OrganoGas™ in the financial statements of BioEnergy Innovation for FY2020.</p> <ul style="list-style-type: none"> <li>Do not provide closing journal entries.</li> <li>Round all calculated amounts to the nearest rand.</li> <li>Assume all amounts are material.</li> </ul> <p><i>Communication skills – presentation</i></p>	10	
		1	11
(b)	<p>Disclose, for only Fermento™, the following with respect to the financial statements of BioEnergy Innovation for FY2021:</p> <p>(i) The 'Intangible assets' note; and</p> <p>(ii) The research and development expenses for inclusion in profit or loss for the year.</p> <ul style="list-style-type: none"> <li>Do not provide disclosure of foreign exchange differences recognised in profit or loss.</li> <li>Do not provide accounting policy notes and comparative amounts.</li> <li>Round all calculated amounts to the nearest rand.</li> <li>Assume all amounts are material.</li> </ul> <p><i>Communication skills – layout and structure</i></p>	11 3	
		1	15
(c)	<p>Discuss, in terms of the Companies Act, the following with respect to the loan to Pieter:</p> <ul style="list-style-type: none"> <li>The validity of the loan;</li> <li>The possible implications for the financial director of BioEnergy Power; and</li> <li>Matters that should have been considered.</li> </ul> <p><i>Communication skills – clarity of expression</i></p>	10	
		1	11
(d)	<p>Discuss the requirements, in terms of the Companies Act, that BioEnergy Power should have complied with to grant the contract to Gelden Transport.</p>	5	5
(e)	<p>Identify, with reasons, the key stakeholders of Gelden Transport that are affected by the contract between BioEnergy Power and Gelden Transport.</p>	8	8
<b>Total for question 2</b>			<b>50</b>
<b>TOTAL FOR PAPER 3</b>			<b>100</b>