QUESTION 1 **100 marks**

Ignore value-added tax

Educo Holdings Ltd ('Educo') is the holding company of a group of companies that provides affordable private school education. Educo is currently not listed on any stock exchange. Educo has provided education to school learners since 2000 and believes that education is the cornerstone of any society. The company provides education to approximately 45 000 learners in 122 schools across South Africa and also has a presence in Botswana.

1. Background

The Educo group has grown its operations by opening new schools as well as by acquiring existing private schools.

At the start of the financial year ended 31 December 2017 (FY2017), Educo's trading functions were performed through the following wholly-owned subsidiaries:

- Educo Schools SA (Pty) Ltd ('ESSA') – South African school portfolio; and
- MaxiLearn (Pty) Ltd ('MaxiLearn') – Botswana school portfolio.

ESSA has a policy of a maximum class size of 30 learners. In 2017 the average annual tuition fee at its schools was R39 000 per learner. Enrolled learners in 2017 as a percentage of available capacity (maximum number of learners that can be accommodated) was 74%. ESSA is proud of the calibre and experience of its educators and the learner to educator ratio (number of learners to educators) was 17:1 in 2017.

All entities within ESSA have the South African rand (ZAR) as their functional and presentation currency. The Educo group's presentation currency is the ZAR.

2. Industry

The growth in South Africa's middle class has resulted in an increasing demand for private education. In addition, the capacity constraints experienced by the government's Department of Basic Education in delivering educational services by government schools have also provided the opportunity for the private sector to fill the gap.

The perception among parents is that education is pivotal to the future success of their children and this has also boosted enrolments at affordable private schools. However, the current economic downturn is placing pressure on consumer spending and negatively affecting learner numbers in private schools.

Competition in the private education sector remains a key challenge for sustainable growth, with the main role players being Curro, ADvTECH and Educo.

2.1 ESSA – new school opportunity

ESSA is considering opening a new Educo school in George, a town in the Western Cape. Although there are established schools in the area that are providing high quality education, ESSA has identified a demand for a new private school in George. ESSA conducts a net present value (NPV) analysis on all potential new schools as part of its investment decision-making process. This analysis covers a planning period of up to six years after the initial establishment of a school, as it normally takes a new school six years to reach its sustainable occupancy level.

In January 2017 ESSA identified a plot of land that was suitable for establishing the new proposed school in George. During 2017 ESSA paid R1 500 000 for research into the feasibility of the new school and to obtain land rezoning approvals, of which 40% is attributable to the research. The land in question is owned by a farmer and ESSA negotiated an option to purchase the land for R9 million. This option is expected to be exercised once the financial feasibility plan relating to the new school has been successfully concluded. The construction of the school buildings and sports facilities could commence in January 2018 and be completed by 31 December 2018, ahead of the 2019 school year.

The construction of the school buildings and the sports facilities will be outsourced to an independent building contractor and it is expected to cost R70 million, based on the assumption that the construction commences in January 2018. The sports facilities will be limited but sufficient to allow for some extramural activities. The building contractor will require an advance payment of R28 million of the total building cost, prior to the commencement of construction. The balance of R42 million will be payable upon completion of the project at the end of December 2018. The land and buildings together are expected to have a market value of R115 million at the end of 2024.

Furniture, fixtures and equipment for the proposed school are to be sourced from a third party at a cost of R8 million, payable at the end of December 2018.

The management accountant of ESSA, Lwandle James, has prepared a preliminary six-year financial feasibility plan for the proposed George school. The plan is based on the following forecast revenues and expenses for years ended 31 December:

	2019	**2020**	**2021**	**2022**	**2023**	**2024**
	R'000	**R'000**	**R'000**	**R'000**	**R'000**	**R'000**
Tuition fee revenue	7 533	18 807	31 328	39 245	48 000	57 664
Entrance fees	243	347	367	195	206	219
Total revenue	7 776	19 154	31 695	39 440	48 206	57 883
Operating expenses	(10 876)	(16 443)	(24 363)	(28 852)	(32 231)	(35 913)
Bad debts	(113)	(282)	(470)	(589)	(720)	(865)
Curriculum and extramural costs	(360)	(382)	(404)	(429)	(454)	(482)
Employee costs	(8 340)	(13 916)	(21 520)	(25 756)	(28 863)	(32 249)
Facility costs	(450)	(477)	(506)	(536)	(568)	(602)
IT costs	(180)	(194)	(210)	(225)	(240)	(257)
Marketing expenses	(61)	(65)	(69)	(73)	(77)	(82)
Pre-opening costs	(300)	0	0	0	0	0
Printing and stationery costs	(104)	(111)	(117)	(124)	(132)	(140)
Shared costs	(968)	(1 016)	(1 067)	(1 121)	(1 177)	(1 235)
EBITDA	(3 100)	2 711	7 332	10 588	15 975	21 970
Depreciation on building	(1 400)	(1 400)	(1 400)	(1 400)	(1 400)	(1 400)
Depreciation on equipment	(1 143)	(1 143)	(1 143)	(1 143)	(1 143)	(1 143)
EBIT	(5 643)	168	4 789	8 045	13 432	19 427
Finance charges	(20 678)	(14 160)	(15 327)	(16 140)	(16 505)	(16 190)
(Loss)/profit before tax	(26 321)	(13 992)	(10 538)	(8 095)	(3 073)	3 237
Taxation	0	0	0	0	0	0
(Loss)/profit for the year	(26 321)	(13 992)	(10 538)	(8 095)	(3 073)	3 237

Explanatory notes

- The George school will have a maximum capacity of 1 080 learners. Because parents prefer to send their children to new schools in either grade 1 or grade 8 rather than for example grade 7 or 12, the various grades fill up over time and new schools reach sustainable occupancy levels by year 6.
- The average annual tuition fee is assumed to be R46 500 per learner in 2019. The George school is expected to charge a non-refundable entrance fee of R1 500 each per new pupil enrolled at the school. The average annual tuition fee and entrance fee are forecast to increase by 7% in 2020 and by 6% per annum thereafter. Tuition fees are paid monthly in advance while entrance fees are paid when learners enrol.
- Curriculum expenses represent the forecast costs of developing and improving the school's learning materials. The extramural expenses relate to the cost of providing sport and cultural activities for learners.
- Employee costs represent the salaries paid to educators and administration and facilities staff employed at the George school. An average annual salary increase of 6% per annum is assumed from 2020 onwards. The forecast number of educators and support staff is as follows:

	Number of educators	Number of support staff
2019	15	10
2020	24	15
2021	36	20
2022	42	20
2023	45	20
2024	48	20

- Facility costs represent the estimated municipal costs (rates and taxes, water and electricity) and maintenance costs of the George school property.
- The IT costs include the cost of providing free Wi-Fi at the school.
- Marketing expenses represent the costs of advertising the George school in the local media (community newspapers and radio stations) and advertising boards with the school name on them around the school.
- Pre-opening costs are expected to be incurred in 2018 and comprise marketing expenses of R200 000 and other expenses of R100 000.
- Educo encourages learners to use iPads at school. Electronic versions of textbooks and other learning material are made available for downloading onto iPads. Unfortunately, Educo still needs to print materials but this is expected to decline in real terms over time. Thus the average cost of printed material per learner is expected to decline between 2021 and 2024.
- Shared costs represent the allocated forecast head office costs relating to enrolments, finance, curriculum development oversight, strategy development and overall management. These costs are evenly allocated to individual schools (total head office costs are divided by the number of open and operating schools).
- The cost of the school buildings and sport facilities (R70 million) has been depreciated over the expected useful life of 50 years. Equipment is depreciated over an average expected useful life of seven years.
- Finance charges represent the forecast interest on the head office loan to fund the George school. Educo advances loans to new schools from head office at an annual interest rate of 12%. All funding is provided by the head office to individual schools. All surplus free cash flows are used to repay head office loans until the loans have been paid off.

- A newly incorporated private company will own the George school and the land and buildings. The company would be entitled to claim a building allowance for income tax purposes. However, the management accountant estimates that the new company will not have any taxable income for the first six years of operation.

Educo uses a weighted average cost of capital of 14% when evaluating new school projects. The management accountant has prepared an NPV estimation for the George school. These forecast figures are based on the above forecast revenues and expenses and assume that cash flows occur at the end of calendar years.

George school NPV	**2017 Rmillion**	**2018 Rmillion**	**2019 Rmillion**	**2020 Rmillion**	**2021 Rmillion**	**2022 Rmillion**	**2023 Rmillion**	**2024 Rmillion**
Land cost	(10,5)	–	–	–	–	–	–	–
Building costs	(28,0)	(42,0)	–	–	–	–	–	–
Equipment costs	–	(8,0)	–	–	–	–	–	–
EBITDA	–	(0,3)	(2,8)	2,7	7,3	10,6	16,0	22,0
Finance charges	–	–	(20,7)	(14,2)	(15,3)	(16,1)	(16,5)	(16,2)
Terminal value	–	–	–	–	–	–	–	115,0
Net cash flows	(38,5)	(50,3)	(23,5)	(11,5)	(8,0)	(5,5)	(0,5)	120,8
NPV @ 14%	(68,0)							

Lwandle estimated the terminal value at the end of 2024 to be the expected market value of the land and buildings. He concluded that the George school may not be a financially feasible venture given the expected negative NPV that he calculated.

Sale and leaseback

Educo is experiencing liquidity constraints given its high growth through acquisitions and from the investments required for the development of their new schools. Both growth avenues require significant upfront investment. While Educo would be able to fund the acquisition of the land and buildings for the George school, the group will need to raise additional capital to fund its operations in the first few years.

Johannesburg Merchant Bank ('JMB') has offered to finance the new George school through a sale and leaseback arrangement with Educo. The proposed terms of the sale and leaseback agreement are summarised in the table below:

JMB sale and leaseback agreement details	
Assets affected	Land and buildings. JMB will acquire the land and buildings on 1 January 2019.
Selling price of the assets	Land – R15 million School buildings and sports facilities – R70 million
Lease instalments	Six annual instalments of R7 500 000 each payable in arrears and commencing on 31 December 2019.
Repurchase option	Educo has the option to repurchase the land and buildings at R115 million when the lease agreement comes to an end on 31 December 2024.

Educo is considering as an alternative the following:
- Selling the land and buildings at R110 million on 1 January 2024; and
- Entering into a lease agreement with AMZ Properties and paying it R13 million annually in arrears, increasing at 6% per annum thereafter (Educo intends to lease the land and buildings from that point onwards).

Pricing proposals

Educo has been considering a revision of its ESSA pricing policies in order to increase revenue. The management team is considering the introduction of one or more of the following alternatives for boosting revenue and/or cash flows:
- Offering parents a 2,5% discount if they settle their tuition fees annually in advance as opposed to paying monthly in advance; and/or
- Increasing all tuition fees by a once-off 10% while simultaneously offering refunds of 10% of annual tuition fees if a learner achieves an average of at least 80% in all his/her subjects.

2.2 MaxiLearn: Disposal of foreign operation

Educo purchased 100% of the ordinary shares in MaxiLearn on 1 March 2016, thereby obtaining control over the company. MaxiLearn is domiciled in Botswana and has the Botswana Pula (BWP) as its functional currency. Educo obtained a loan from ZBank Ltd to fund the purchase consideration of R200 million in cash. The loan from ZBank Ltd is repayable in monthly instalments over 60 months and all aspects relating to the loan have been correctly accounted for in the separate financial statements of Educo.

MaxiLearn operates the MaxiLearn brand of schools in Botswana. When it purchased MaxiLearn, Educo's intention was to actively pursue profitable foreign school investments. However, it has not made any further progress and the MaxiLearn brand of schools is the only foreign school investment held by the Educo group.

On 1 March 2016 the net asset value of MaxiLearn amounted to BWP100 million, comprising ordinary share capital of BWP40 million and retained earnings of BWP60 million. The group financial accountant, Ruby Red, was of the opinion that the net asset value was fairly stated in terms of IFRS 3 *Business Combinations*, with the exception of the following two items where she was uncertain how it should be accounted for:

- ***Learning approach:*** The MaxiLearn schools have developed a unique learning approach to mathematics, called 'The Magic of Maths'. The learning approach is a first of its kind and assists primary school learners with understanding key concepts in mathematics by exploring different methods of counting, such as stacking pebbles, tying knots in a string or carving notches on sticks. Although the learning approach could be sold or licensed to any party, Ruby has mentioned that management has no intention of selling or licencing the learning approach to any party outside of the Educo group. Ruby has determined that the fair value of this technical expertise amounted to BWP10 million on 1 March 2016 with a useful life of seven years from that date. The technical expertise would not qualify for any tax allowances or deductions.

- ***Buildings:*** The following information related to the buildings of MaxiLearn on 1 March 2016:

Cost	BWP35 million
Carrying amount	BWP30 million
Fair value	BWP55 million
Residual value	BWP40 million
Remaining useful life	10 years

As the school properties are owner-occupied by the schools, they also qualify for tax allowances. The following Botswana tax legislation is applicable:

- The school is entitled to an annual wear and tear allowance of 2,5% per annum of the cost of the buildings.
- Botswana does not have capital gains tax. However, any amount received on disposal of the buildings over and above the tax value is included in taxable income and taxed in full at 22%.

On 1 March 2016, Educo agreed with MaxiLearn's estimates of the residual value and remaining useful life as indicated above.

MaxiLearn did not revalue its buildings or process any adjustments relating to 'The Magic of Maths' learning approach as a result of the acquisition by Educo.

Ruby provided the following extracts from the trial balances at 31 December 2017. The trial balance for the Educo group already consolidates the South African subsidiaries but excludes the consolidation of MaxiLearn.

	Extracts from the Educo group consolidated trial balance, excluding consolidation of MaxiLearn*	**MaxiLearn**
	R'000	**BWP'000**
Retained earnings at the beginning of the year	3 000 000	72 000
Profit after tax for the year**	1 350 000	23 000
Dividends declared and paid (30 April 2017)	–	(10 000)

* In the separate financial statements of Educo, all amounts relating to MaxiLearn have been correctly accounted for in accordance with Educo's accounting policies for subsidiaries and investments in equity instruments.

** The profit of MaxiLearn accrued evenly throughout the year.

In view of the need to improve liquidity, Educo disposed of 82,5% of its equity interest in MaxiLearn to an education company based in the United Kingdom (UK) for a cash amount of BWP160 million, effective 30 November 2017. The cash consideration was received in Educo's BWP bank account held at Botswana National Bank (BNB). As a result of this transaction Educo no longer has any influence over the relevant activities of MaxiLearn. The fair value of the remaining interest amounted to BWP25 million on 30 November 2017, excluding the put option. The put option has the following terms and conditions:

- Educo received a put option for the 17,5% interest retained.
- It grants Educo the right to sell the remaining interest to the UK-based education company.
- The strike price will be BWP34 million.
- The sale will take place one year after the implementation of iPad-based learning at MaxiLearn schools. This implementation is not considered to be a relevant activity of MaxiLearn.
- The fair value of the remaining 17,5% interest amounted to BWP27 million on 31 December 2017, excluding the put option. The put option had a fair value of BWP5 million on 30 November 2017 and BWP4 million on 31 December 2017.

All adjustments in relation to the put option have been correctly accounted for in the separate financial statements of Educo.

The following exchange rates are applicable:

	Spot rate BWP:ZAR	Average rate BWP:ZAR
1 March 2016	1,372	–
1 March 2016 to 31 December 2016	–	1,322
31 December 2016	1,286	–
30 April 2017	1,272	–
1 January 2017 to 30 November 2017	–	1,269
30 November 2017	1,260	–
31 December 2017	1,255	–

3. Additional information

- The Educo group has a 31 December year end and all entities within the Educo group apply International Financial Reporting Standards (IFRS).
- The Botswana corporate income tax is a single flat rate of 22%.
- Educo has early adopted IFRS 9 *Financial Instruments* and accounts for investments in equity instruments at fair value through other comprehensive income. No equity investments are held for trading. Investments in subsidiary companies are accounted for at cost in the separate financial statements of Educo in terms of IAS 27 *Separate Financial Statements.* There were no reserves or movements in equity other than those included in the scenario above.
- The current South African corporate income tax rate (and other prevailing tax rates) are expected to remain unchanged for the foreseeable future.

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INITIAL TEST OF COMPETENCE, JANUARY 2018
PROFESSIONAL PAPER 2

This question consists of two parts. Answer each part in a separate answer book.

QUESTION 1 PART I – REQUIRED		**Marks**	
		Sub-total	**Total**
(a)	Analyse and discuss Lwandle's estimate of the NPV for the proposed George school and identify any errors and/or omissions in his calculations. • Assume that Lwandle's calculations are mathematically accurate. • It is not necessary to re-calculate the NPV.	19	
	Communication skills – logical argument	*1*	20
(b)	Identify the key factors, apart from the result of the NPV analysis, which Educo should consider in evaluating the potential feasibility of the proposed George school.	8	
	Communication skills – clarity of expression	*1*	9
(c)	Calculate the after-tax NPV from Educo's perspective of – (i) entering into the proposed JMB sale and leaseback arrangement, on the assumption that Educo exercises the option to acquire the school property on 31 December 2024; and	10	
	(ii) entering into the alternative arrangement of owning the school property until 2023 and then entering into a long-term lease arrangement with AMZ Properties.	10	
	• Limit your analysis to cash flows up to 31 December 2024. • Perform the calculations separately.		20
(d)	Critically discuss the proposals to amend the ESSA pricing policies.	10	
	No calculations are required.		
	Communication skills – logical argument	*1*	11
Total for part I			**60**

INITIAL TEST OF COMPETENCE, JANUARY 2018
PROFESSIONAL PAPER 2

This question consists of two parts. Answer each part in a separate answer book.

QUESTION 1 PART II – REQUIRED		**Marks Sub-total**	**Marks Total**
(e)	Prepare the consolidated statement of changes in equity of the Educo group for the year ended 31 December 2017. • Ignore all the tax implications for Educo relating to the disposal of the 82,5% interest in MaxiLearn. • Notes and comparatives are not required. • A total column is not required. • Present and round all amounts to the nearest R'000.	30	
	Communication skills – presentation	*1*	31
(f)	Briefly discuss how Ruby should recognise, classify and measure the put option for the 17,5% interest in MaxiLearn in the separate financial statements of Educo for the year ended 31 December 2017. • Ignore taxation.	8	
	Communication skills – clarity of expression	*1*	9
Total for part II			**40**
TOTAL FOR THE QUESTION			**100**