



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**Plot 91, Cadastral Zone, Nnamdi Azikiwe Express Way. Jabi-Abuja**  
**Faculty of Management Sciences, Department of Financial Studies**  
**JULY Examination 2017**

**Course Code: MGS713**

**Course Title: CAPITAL INVESTMENT AND FINANCIAL DECISIONS**

**Credit Unit: 2**

**Time Allowed: 2 Hours.**

**Instructions:**

- 1. Attempt Question 1 and any other two (2) Questions.**
- 2. Question 1 is compulsory and carries 30 marks while the other 2 Questions carry 20 marks each.**
- 3. Present all your points in a coherent and orderly manner.**

**Questions:**

1a. Prof. Wisdom Johnson is considering a project having the following cash flow profile:

Year	Outlay	Saving	Running Cost
0	(1,000,000)	-	-
1		420,000	140,000
2		560,000	245,000
3		840,000	350,000
4		1,050,000	420,000

Suppose the hurdle rate is 10%.

You are required to calculate:

- a. The project's viability
- b. (i) The project's sensitivity to the outlay  
(ii) The project's sensitivity to the savings.

**1b.** Broadly speaking, investments can be classified into two -investment in real assets and investment in financial assets. In the words of Okafor (1983) both types of investment can further be classified on the basis of a number of parameters. State five (5) of these parameters.

**1c.** It is estimated that an investment with an initial cost of N600, 000 will cause the following cash flow (in N):

Year	1	2	3	4	5	6
Cash flow	(100,000)	150,000	200,000	200,000	200,000	200,000

If the firm wishes to earn at least 15% per annum on projects of this type, you are required to:

- calculate the NPV corresponding to each of the two discount rates of 6% and 9% ;
- estimate the Internal Rate of Return for the project using the formula method and
- interpret the result

**(2a).** The initial cash outlay of a project is N100, 000. If the project is to generate cash flows of N30,000, N35,000, N40,000, N33,000 and N55,000 in five years, determine the profitability index if the discount rate is 12%

**(2b.)** Discuss 3 advantages and 3 disadvantages of Sensitivity Analysis as an Investment tool.

**3a.** A project requires an outlay of N450,000 and provides annual cash flow of N90,000 for 8 years. Determine the payback period

**3b.** Investment decisions are carried out under one of the three possible conditions of risk. Mention and discuss these briefly these conditions of risk

**4a.** As a Financial analyst, what do you understand by the investment appraisal tool of Profitability Index and state the cardinal decision rules

**4b.** Peculiar Mega Ventures Ltd is considering 5 different investment windows. The Company's cost of capital is 12%. The information on the investments windows being considered are given below:

Project	Investment N'000	PV at 12%	NPV N'000	IRR N'000	Profitability Index
A.	35,000	39,325	4,325	161.12	
B.	20,000	22,930	2,930	151.15	
C.	25,000	27,453	2,453	141.10	

D.	10,000	10,854	854	181.09	
E.	9,000	8,749	(251)	110.97	

Required:

- i.** Rank the projects in descending order of preference according to NPV, IRR and P.I
- ii.** Which ranking would you prefer?
- iii.** Based on your answer in (ii) which projects would you select if Peculiar Mega Ltd has just N55Million as its budget limit

**5a.** Explain succinctly the concept of Net Present Value as an investment appraisal technique, state its major weakness(es) and mention the recommended antidote(s)

**5b.** Compare and contrast the concept of money Cash flow and that of real Cash flow