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INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

MBA IV Semester End Examinations (Regular) - May/June, 2018

Regulation: IARE-R16

FINANCIAL MODELING

Time: 3 Hours

(MBA)

Max Marks: 70

Answer ONE Question from each Unit

All Questions Carry Equal Marks

All parts of the question must be answered in one place only

UNIT – I

1. (a) Calculate the following using appropriate financial functions of excel:
 - i. A has invested US \$100 in 2016. The payment has been made yearly. The interest rate is 10% p.a. What would be the FV in 2019?
 - ii. M has invested US \$100 at the end of 2016. It is expected that the interest rate will change every year. In 2017, 2018 & 2019, the interest rates would be 4%, 6% & 5% respectively. What would be the FV in 2019? [7M]
- (b) Explain different types of form controls provided in excel. [7M]
2. (a) List and briefly explain different attributes of good excel model. [7M]
- (b) Write the syntax of DMAX function and explain different arguments of this function by taking an example. [7M]

UNIT – II

3. (a) Briefly discuss the benefits and limitations of simulation model. [7M]
- (b) Explain the process of setting up data validation. [7M]
4. (a) Discuss the steps involved in creating two variable data sets [7M]
- (b) Explain how excel supports the business analyst in developing models in finance using simulation. [7M]

UNIT – III

5. (a) Briefly discuss the process of modeling the statement of cash flows. [7M]
- (b) Give the comparison between present value and net present value. [7M]
6. (a) Illustrate how to calculate the price of a call option written on a stock whose current price $S = 50$, when the exercise price $X = 45$, the annualized interest rate $r = 4\%$, and $\sigma = 30\%$. The option has $T = 0.75$ years to exercise. All three of the parameters T , r and σ are assumed to be in annual terms. [7M]
- (b) Give the differences between the income statement and the cash flow statement. [7M]

UNIT – IV

7. (a) Illustrate the usage of using SumIF, CountIF and AverageIF functions in excel by taking an example for each. [7M]
- (b) Briefly discuss Black and Scholes solution to the optimization problem. [7M]

8. (a) Explain different prepositions for efficient portfolio nomenclature. [7M]
(b) Briefly discuss common methods for debugging Excel VBA code. [7M]

UNIT – V

9. (a) List and briefly discuss different VBA debugging tools. [7M]
(b) Explain different steps in creating a financial model using excel and VBA. [7M]
10. (a) What is a macro recorder? Briefly discuss the uses and limitations of a macro recorder. [7M]
(b) List the important rules of naming variables in VBA. [7M]