# Presidency University, Bengaluru

#### School of Law

II Semester 2015-2016

COMPRE

BL A 104 Logic

(Closed Book)

Max Marks: 80

Max Time: 3hrs

Weightage: 40 %

30<sup>th</sup> MAY 2016

PART-A

2X10=20

### CHOOSE THE CORRECT OPTION AND GIVE THE REASON

- 1. Which is used to construct the complex sentences?
- a) Symbols
- b) Connectives
- c) Logical connectives
- d) All of the mentioned
- 2...How many proposition symbols are there in artificial intelligence?
- a) 1
- b) 2
- c) 3
- d) 4
- 3. How many logical connectives are there in artificial intelligence?
- a) 2
- b) 3
- c) 4
- d) 5.
- 4. Which is used to compute the truth of any sentence?
- a) Semantics of propositional logic
- b) Alpha-beta pruning
- c) First-order logic
- d) Both a & b
- 5. Which are needed to compute the logical inference algorithm?
- a) Logical equivalence
- b) Validity

- c) Satisfiability
- d) All of the mentioned
- 6. Which form is called as conjunction of disjunction of literals?
- a) Conjunctive normal form
- b) Disjunctive normal form
- c) Normal form
- d) All of the mentioned
- 7) AZ, GT, MN, ?, YB
- A. KF
  - B. RX
- ° C. SH
- D. TS
- 8) AZ, CX, FU, ?
- A. IR
- B. IV
- C. JQ
- C D. KP
- 9) AZ, BY, CX, ?
  - A. EF
- B. GH
- C. IJ
- D. DW

- 10) DKY, FJW, HIU, JHS, ?
  - A. KGR
  - B. LFQ
- C. KFR
- D. LGQ

PART-B

6x5=30

- 1. What is logic? What is informal logic? Where is the term logic derived from?
- 2. What is a logical fallacy? Give example.
- 3. What are the four forms of judgment in logic? Explain.
- 4. What does the doctrine of 'quantification of predicates ' mean? Explain.
- 5. Explain what first order logic is.

PART-C

10X3=30

- 1. Explain the symbols of set theory with their meanings and applicability.
- 2. Explain the logical symbols with their meanings and applicability.
- 3. What is logical truth? Explain.

II Semester 2015-2016

Test 2

Course: BL A 104 (Closed Book)

Logic

Max Marks: 50

Max Time: 50 Min

Weightage: 25 %

25 April 2016

### Part-A

### 5x2 = 10

- 1. What is poly syllogism?
- 2. What is hypothetical syllogism?
- 3. Define syllogism.
- 4. What is a convert end and converse?
- 5. What is sorites? Where is the term derived from?

#### Part-B

#### 4x5 = 20

- 1. How many terms are there in syllogism? Name them and explain.
- 2. What is reduction? Give example
- 3. What are the four forms of judgment in logic?
- 4. What does the doctrine of 'quantification of predicate mean'?

#### Part-c

#### 10x2 = 20

- 1. Directions for reductions are of two types (moods). Name them and explain.
- 2. Explain the symbols along with their meaning and usage from set theory as a part of modern logic.

# Answer key-1

Qn.no	questions	Answers-key	marks
1	What is poly Meaning-2m syllogism?		2m
2	What is hypothetical syllogism	Meaning-2m	2m
3	Define syllogism.	Def-2m	2m
4	What is a convert Each-1m end and converse		2m
5	What is sorites? Each-1m Where is the term derived from?		2m
6	How many terms are there in syllogism? Name them and explain.	Name -Three terms- 2m Explanation-3m	5m
7	What is reduction? Give example	Meaning-2m Example-3m	5m
8	What are the four forms of judgment in logic?	List of four forms-2m Explanation-3m	5m
9	What does the doctrine of 'quantification of predicate mean'?	Meaning-2 Example-3m	5m
10	Directions for reductions are of two types (moods). Name them and explain.	Mentioning two moods-3m Explanation-4m Example-3m	10m
11	Explain the symbols along with their meaning and usage from set theory as a part of modern logic	Symbols-5m Meaning and usage- 5m	10m

II Semester 2015-2016

Test 1

Course: BBL A 104 Financial Management

(Closed Book)

Max Marks: 30

Max Time: 50 Min

Weightage: 15 %

28 March 2016

Set A

### Q 1. Answer the following in short

 $(5Q \times 1M = 5M)$ 

- 1. State the different forms of Business Entities
- 2. State the broad aspects of "Financial Management
- 3. State any three alternate goals of "Financial Management".
- 4. Define "Agency Problem" in terms of Corporate Management
  - Define "Future Value Interest Factor". State its formula

### Q 2. Briefly answer the following

 $(3Q \times 5M = 15M)$ 

- 1. a] State the formula for the Present Value of an "Annuity".
  - b] What is the Present Value of the following Cash Stream if rate of interest/discount is 14% per annum? [Cash Flows happen at the end of respective year]

Year	1	2	3	4	5
Cash Flow [Rs]	6,000	6,000	7,000	9,000	10,000

- 2. a] Define "Present Value of a Growing Annuity". State its formula
  - b] John decides to save the following amounts every year for the next 6 years such that he may receive a lumpsum for the education of his daughter. If the rate of return is expected to remain constant @ 12 per annum over the next 6 years how much will John get at the end of the 6<sup>th</sup> year, if payments are made at the end of each year?

Year	1	2	3	4	5	6
ash Flow [Rs]	4,000	6,000	8,000	11,000	14,000	20,000

- 3. a] Define "Future Value of an Annuity". State its formula
- b] A Finance Company advertises that it will pay a lumpsum of Rs. 2,41,440 at the end of 5 years to depositors who deposit Rs. 30,000 annually with them for 5 years. What is the interest rate offered under this Scheme? Assume that all deposits are made at the end of the respective year
- Q 3 Delmar India Pvt. Limited issued a series of Bonds with a Face Value of Rs. 20,000 each. The Bond carried a coupon rate of 12% per annum, payable every half yearly. The tenure of the bond is 10 years. Find the value of the Bond if the yield [ rate of return] is
  - a] 8%
  - b] 12%
  - cl 16%

Explain this phenomenon in terms of Yield and Price

II Semester 2015-2016

Test 1

Course: BBL A 104 Financial Management

(Closed Book)

Max Marks: 30

Max Time: 50 Min

Weightage: 15 %

28 March 2016

Set B

## Q 1. Answer the following in short

 $(5Q \times 1M = 5M)$ 

- 1. Define "Present Value Interest Factor". State its formula.
- 2. Define the primary goal of "Financial Management".
- 3. Define the "Fundamental Principle of Finance"
- 4. Define "Time Value of Money".
- 5. Distinguish between "Rule of 72" and "Rule of 69"

### Q 2. Briefly answer the following

 $(3Q \times 5M = 15M)$ 

- 1. a] Define an "Annuity" ". Explain the difference between "Ordinary Annuity" and "Annuity Due".
  - b] Fifteen [15] annual payments of Rs. 15,000 is made into an Endowment Plan that pays 12% interest per annum. What is the value of this Annuity at the end of 10 years if the payments are made at the end of each year commencing from the first year
- 2. Discuss briefly the Building Blocks of Modern Finance.
- 8.
- 4. Discuss Risk-Return Trade-off in Financial Decisions.
- 7

Q 3 Raman avails a loan of Rs. 5,00,000 for his business. The loan carries an interest rate of 15% per annum and the loan was to be repaid in 5 equal annual installments, payable at the end of each of the next 5 years. You are required to prepare the Loan Amortisation Schedule for this Loan (10 M)

II Semester 2015-2016

Test 1

Course: BL A 104 Logic (Closed Book)

Max Marks: 30

Max Time: 50 Min

Weightage: 15 %

22 Feb 2016

Set A

#### Solutions

### Q 1. Answer the following in short

 $(5Q \times 1M = 5M)$ 

- A. What is logic?
- B. What is informal logic?
- C. Where is the term logic derived from?
- **D.** What is a statement?
- E. What is a logical fallacy?

### Q 2. Briefly answer the following

 $(3Q \times 5M = 15M)$ 

- 1. What is the meaning of post hoc fallacy? From where has it been derived?
- 2. How is science different from logic?
- 3. What is deductive and inductive reasoning

Q 3 (a). Explain the necessity of logic.

 $(5 + 1 \times 5 = 10M)$ 

- (b) Give the reasoning and say why they are statements.
  - a. can you come to the party tomorrow?
  - b. I am ordering you to stop talking in the class.
  - c. Come here!
  - d. A chicken is a song that weighs ten tons.
  - e. All statements are true.