B.A. Examination 2022
Philosophy
Semester – III
Paper- CC-7
Textual Study (Western) [Part-I]

Time: 3 hours | Full Marks: 60

Questions are of value as indicated in the margin.
Answer **any four** questions from the following

1. Was Hume justified in believing that, impression is the source of all our ideas? Give reasons. (15)
2. Explain after Hume, the nature of all our reasoning concerning *matters of fact*. How did he distinguish it with our reasoning concerning *relations of ideas*? (8+7)=15
3. 'Bread will always nourish me in future.' Is this inference a necessary one? Justify your answer with reference to Hume. (15)
4. State and explain Hume's argument regarding the idea of necessary connection between cause and effect (15)
5. Distinguish between the different kinds of philosophical thinking. What was Hume's opinion regarding the same? (8+7)=15
6. Write short notes on any three (5+5+5)=15
   a. Difference between impressions and ideas
   b. Principles of association among ideas
   c. 'Influence of custom conceals itself the most where it is strongest'
   d. Features of a logically necessary relation

B.A. Examination 2022
Philosophy
Semester – III
Paper- CC-5
Western Logic

Time: 3 hours | Full Marks: 60

Questions are of value as indicated in the margin.
Answer **any four** questions from the following

1. a. If A is true, X and Y are false, and P and Q are unknown, can you find the truth value of the following statements? 5
   i. $[P \vee (Q \bullet A)] \bullet \sim [(P \vee Q) \bullet (P \vee A)]$
   ii. $[X \vee (Y \bullet A)] \vee \sim [(X \vee Y) \bullet (X \vee Z)]$

   b. Use truth-table to find the validity or invalidity of the following argument 4

   i. $(O \vee P) \supset Q$
   $Q \supset (O \bullet P)$
   $\therefore (O \vee P) \supset (O \bullet P)$

   c. Use truth-table to determine whether the statement is tautologous 2

   i. $[(p \bullet q) \supset r] \equiv [p \supset (q \supset r)]$

   d. Define truth-functional components and truth function compounds with the help of an example. 4

2. a. Construct a formal proof of validity (3+3+4)
   i. $A \supset B$
   $B \supset C$
   $C \supset A$
   $A \supset \sim C$
   $\therefore \sim A \bullet \sim C$
   ii. $\sim B \vee [(C \supset D) \bullet (E \supset D)]$
   $B \bullet (C \vee E)$
   $\therefore D$
   iii. The solution is acidic if the litmus paper turns red. Therefore, the litmus paper does not turn red unless either the solution is acidic or something is wrong somewhere. (A,R,W).

   b. What is a formal proof of validity? Define with example, an elementary valid argument form. 5

3. a. Construct a direct proof and a conditional proof of the following and compare the lengths of the two proofs. 8
   i. $(H \supset P) \bullet (S \supset W)$
   $\therefore (H \vee S) \supset (P \vee W)$

   b. Construct a conditional proof 4

   i. $J \supset (A \vee S)$
   $K \supset (S \vee I)$

$\sim S$

$\therefore (\sim A \bullet \sim I) \supset (\sim J \bullet \sim K)$

c. What are the conditions required for performing a conditional proof. 3

4. a. Construct an indirect proof of the following: 5

i. $D \supset (Z \supset Y)$

$Z \supset (Y \supset \sim Z)$

$\therefore \sim D \vee \sim Z$

b. Construct a proof using both indirect and conditional method in the same proof 5

i. $C \supset (M \supset D)$

$D \supset V$

$(D \supset A) \bullet \sim A$

$\therefore M \supset \sim C$

c. Explain the procedure of Indirect proof. What is a nested sub-proof? 5

5. a. When is an argument invalid? 2

b. Show the invalidity through shorter truth-table technique or prove the validity: 8

i. $(O \bullet P) \supset (Q \supset R)$

$S \supset \sim R$

$\sim (P \supset \sim S)$

$\sim (O \supset Q)$

$\therefore O$

ii. $(H \supset I) \bullet (J \supset K)$

$(J \vee K) \supset L$

$\sim L$

$\therefore \sim (H \vee J)$

c. Show how traditional subject-predicate formula are symbolized in Quantification theory. 5

6. a. What is a propositional function? State its main difference with a proposition 5

b. Symbolize into logical notations of propositional functions and quantifiers: 5

i. Only citizens of India can vote in elections of India.

ii. Snake bites are sometimes fatal.

c. What is a normal form formula? 2

d. Find a normal form formula logically equivalent to the given one. 3

i. $\sim (x) (\sim Ix \vee Jx)$

ii. $\sim (\exists x) [\sim (Ox \vee \sim Px)]$