2009

PHILOSOPHY

PAPER—VII

Full Marks : 100

Time : 4 hours

Answer any **six** questions
taking **three** from each Group

The figures in the right-hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Write the answer to questions of each Group in separate books

(*Advaita Vedānta*)

GROUP—A

1. Discuss, after the Bhāmatī, the opponent's position that Brahman is not an object of enquiry. 16

2. Explain, after the Bhāmatī, Saṅkara's definition of *adhyāsa , smṛtirupaḥ paratra purvadṛṣṭāvabhāsa* . 16

3. (*a*) What is *akhyāti* ?

(*b*) Explain how does Vacaspati refute the theory of *akhyāti* . 6 + 10

4. *tat punaḥ brahma prasiddham aprasiddhaṁ va syat ? yadi prasiddhaṁ na jijñāsitavyam . atha aprasiddhaṁ naiva śakyaṁ jijñasitum iti* .

Explain the above purvapakṣa and the reaction of Śaṅkara to it. 16

5. Is the Brahmasūtra, *janmādyasya yatah* an inference to prove the existence of Brahman ? Discuss. 16

6. Answer, in short, any *four* of the following : 4 x 4

(*i*) What is *Vedānta* ?

(*ii*) What is *sādhanacatuṣtaya* ?

(*iii*) What are the *Vedāngas* ?

(*iv*) What is *anirvacanīyakhyāti* ?

(*v*) What is *tatastha lakṣaṇa* ?

(*vi*) Distinguish between *arthādhyāsa* and *jñānādhyāsa* .

[*General Impression* : 2 Marks]

GROUP—B

1. (*a*) Discuss *pramālakṣaṇa* , according to Vedānta -Paribhāṣā ?

(*b*) What is meant by *dhārābāhika jñāna* ?

(*c*) How does *pramālakṣaṇa* given in Vedānta -Paribhāṣā avoid the charge of *avyāpti* as regards to *dhārāvāhikajñāna* ? Explain. 8 + 4 + 4

2. (*a*) Explain three types of *caitanya* after Vedānta -Paribhāṣā.

(*b*) What is the criterion of perceptuality of objects (*viṣayagatapratyakṣatva*). Discuss after the Vedānta-Paribhāṣā. Explain briefly. 4 + 12

3. (*a*) What is the utility of contact (*sannikarṣa*) after the Vedānta-Paribhāṣā.

(*b*) Explain *savikalpaka* and *nirvikalpaka pratyakṣa*, according to Dharmarāja. 4 + 12

4. (*a*) Explain the character of perception both as regards objects (*jñeyagata pratyakṣa*) and as regards cognition (*jñaptigata pratyakṣa*), according to Vedānta-Paribhāṣā.

(*b*) Explain, in this connection, the nature of error. 8 + 8

5. (*a*) Explain essential characteristics (*svarupa lakṣaṇa*) and secondary characteristics (*tatastha lakṣaṇa*) with suitable examples.

(*b*) Explicate the essential characteristics and the secondary characteristics of Brahman, according to the Vedānta-Paribhāṣā. 4 + 12

6. (*a*) Answer any *two* from the following : 4x2

(*i*) What is *tanmātra* ?

(*ii*) What is *pañcikaraṇa* ?

(*iii*) What is *liṅgaśarīra* ?

(*iv*) What is *antaḥkaraṇa* ?

(*b*) Answer in short any *four* from the following : 2x4

(*i*) What is *antaḥkaranavṛtti* ?

(*ii*) What is *Hiraṇyagarbha* ?

(*iii*) What is *vyāvahārikatattvāvedakatva* ?

(*iv*) What are the four gross bodies ?

(*v*) Why is *mokṣa* called *parama puruṣārtha* ?

(*vi*) What is *Mahāvākya* ?

[*General Impression* : 2 Marks]

(*Advanced Logic*)

GROUP—A

1. Show that the rule of substitution of Equivalents holds in PM. 16

Or

Derive the following in the PM from its base (any *two*) :

(*i*) $p \supset p$

(*ii*) $p \supset (p \vee q)$

(*iii*) $(p \vee q) \supset ((r \vee q) \vee p)$

(*iv*) $p \vee \sim\sim\sim p$.

2. (*a*) Explain the derived rule used for the derivation of the line (3) in the following proof :

$T_1 : (p \supset (q \supset r)) \supset (q \supset (p \supset r))$ (1)

$T_2 : (q \supset r) \supset ((p \supset q) \supset (p \supset r))$ (2)

$T_2 \times T_1 : (p \supset q) \supset ((q \supset r) \supset (p \supset r))$ (3).

(*b*) Given :

(*i*) $p \vee \sim p$

(*ii*) $(q \supset r) \supset ((q \vee p) \supset (r \vee p))$

(*iii*) $((p \vee q) \vee r) \supset (p \vee (q \vee r))$.

Derive the following in PM.

A. $(p \supset (q \supset (p \cdot q)))$

B. $(p \supset q) \supset ((p \vee q) \supset q)$

C. $(\sim p \supset q) \supset (p \vee q)$ $4 + (4 + 4 + 4)$

3. (*a*) Set out clearly the three different senses of consistency.

(*b*) Show that PM is consistent in all these senses. $6 + 10$

4. (*a*) Explain possibility and impossibility as the basic modal notions.

(*b*) Prove the following theorems in modal system-T:

(*i*) $L(p \equiv q) \equiv (p = q)$

(*ii*) $(Lp \vee Lq) \supset L(p \vee q)$

(*iii*) $Lp \supset (Mq \supset M(p \cdot q))$. $4 + (4 + 4 + 4)$

5. (*a*) Prove the following theorems in the modal system - S_4.

(*i*) MLP ≡ MLMLP

(*ii*) LP ≡ LLP.

(*b*) Answer the following :

(*i*) In what sense the system S_4 is stronger than the system- T ?

(*ii*) In what sense every necessary proposition is necessarily necessary ? (4 + 4) + (4 + 4)

6. Write short notes on the following : 4 + 4 + 4 + 4

(*i*) Modal operators are not truth functional

(*ii*) The Rule of L-M interchange

(*iii*) Paradox of strict implication

(*iv*) Transformation rules.

[*General Impression* : 2 Marks]

GROUP—B

1. (*a*) What is an ordered couple?

(*b*) Let $<4, 5, 6>$ and $<7, 8, 9>$ be two arbitrary ordered triples. Prove that

$<4, 5, 6> = <7, 8, 9>$ if and only if $4 = 7$, $5 = 8$ and $6 = 9$.

(*c*) Will there be any difference if we repeat the element 2 both in $\{1, 2\}$ and $<1, 2>$? Give reasons for your answer.

(*d*) Let, R be a relation where

$$R = \{<1, 1>, <2, 2>, <1, 2>, <2, 3>, <1, 3>\}$$

Find the domain and counter domain of R. State what properties of reflexivity, symmetry and transitivity does the relation have in its own field? $2 + 4 + 3 + 7$

2. (*a*) What is reflexive relation? Give one example of reflexive relation.

(*b*) Let, $Q = \{a, 3, 4\}$. Give an example of a binary relation which is reflexive, transitive but not symmetric in Q.

(*c*) Distinguish the following relations according to the properties they do or do not have. (e.g. reflexive, symmetric, transitive etc.)

(*i*) The relation of loving and the relation of $\geq$.

(*ii*) The relation of being a sister and the relation of being a mother.

(*d*) Is the relation of having the same height an equivalence relation in the set of all persons? Give reasons for your answer.

(*e*)

Let, $A = \{<\text{Tom, Jim}>, <\text{Jim, Ann}>\}$.

What is the Universal relation over the field of A?

$(1+1)+3+(2\frac{1}{2}+2\frac{1}{2})+3+3$

3. (*a*) What is relative product?

(*b*) Let,

$M = \{<2, 1>, <4, 3>, <6, 7>\}$

$N = \{<1, 4>, <3, 5>, <7, 8>\}$

Find : $M \cap (M \mid N)$.

(*c*) If xFy means x is the father of y.
xMy means x is the mother of y.
xBy means x is the brother of y.
xSy means x is the sister of y.

Then find : (answer any *two*)

(*i*) $x[(B \cup S) \mid (M \cup F)]y$.

(*ii*) $x[(M \sim F) \mid (M \cup F)]y$.

(*iii*) $x[(S \sim B) \mid F]y$.

(*d*) Which of the following relations are functions ? Give reasons for your answer.

(*i*) $\{<a, 2>, <a, 3>, <b, 3>\}$

(*ii*) The relation of being a grandparent.

(*iii*) $\{<1, 1>, <2, 4>, <2, 5>\}$.

$2 + 2 + (3 \times 2) + (2 \times 3)$

4. (*a*) What is well formed formula of a formal language and how it is determined ?

(*b*) When can we say that two formal languages are identical ?

(*c*) What is a formal system ?

(*d*) What is proof theory ?

(*e*) What is meant by semantic ?

(*f*) (*i*) Is it a syntactic or a semantic property of a formula of the system *z* that it is an immediate consequence of another formula in *z* ?

(*ii*) Is it a syntactic or a semantic property of a formula that it denotes a number ?

$(1+2)+2+3+2+2+(2+2)$

5. (*a*) Distinguish between the following pairs (any *two*)

(*i*) Model theory and Meta theory

(*ii*) Use and Mention

(*iii*) Decidable and Undecidable sets.

(*b*) Define any *two* of the following :

(*i*) Finite set

(*ii*) Same cardinality

(*iii*) Denumerable set.

(*c*) Explain with examples the notion of an effective method. (3 + 3) + (2 + 2) + 6

6. (*a*) What is an analytically valid inference ? Discuss after A.N. Prior.

(*b*) Is the inference 'Mary is beautiful and Ann is attractive therefore, Ann is attractive' an analytically valid one ? Give reasons for your answer.

(*c*) Does A.N. Prior accept conjunctive statements as compound statements ?

(*d*) What are the meanings of the conjunctions 'and' and 'tonk' ? 3 + 3 + 2 + (4 + 4)

[*General Impression* : 2 Marks]