M.Phil Entrance Examination, June, 2010

Hall Ticket No.-------------------

Max. Marks 75

Time: 2 hours

Instructions:

The question paper consists of three parts: Part A, Part B and Part C.

Part A of the question paper consists of 25 objective (multiple-choice) type questions of one mark each. There is a negative mark of \(\frac{1}{3}\) for every wrong answer. You must answer the questions in the question booklet itself.

Part B consists of 15 objective (multiple-choice) type questions of one mark each based on reading and comprehension of a passage. There will be no negative marking for wrong answers. You must answer the questions in the question booklet itself.

Part C has two sections consisting of short and long essay type questions. (A separate answer book is provided.)

Part – A

1. The Two - World theory was propounded by

   (A) Socrates
   (B) Plato
   (C) Aristotle
   (D) none of the above

2. “Esse est percipi” was held by

   (A) David Hume
   (B) Karl Marx
   (C) George Berkeley
   (D) Jean-Paul Sartre

3. Theoretical ideas, according to Kant,

   (A) are constitutive of experience
   (B) are abstracted from experience
   (C) regulate our thinking about matters of fact
   (D) none of the above

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4. According to Popper's Theory of Verisimilitude truth is
   (A) an inter-theoretic concept.
   (B) an intra-theoretic concept.
   (C) both an inter-theoretic and intra-theoretic concept.
   (D) neither an inter-theoretic nor an intra-theoretic concept.

5. "He believes that she will pass if and only if she studies for at least four hours a day.”
   This statement is
   (A) a non-truth-functional compound statement.
   (B) A truth-functional compound statement.
   (C) Not a statement at all.
   (D) None of the above

6. The absolute moral principle, in Kant’s Ethics, has
   (A) Theoretical objectivity.
   (B) Practical objectivity.
   (C) No objectivity at all.
   (D) Both theoretical and practical objectivity.

7. An object of aesthetic experience, according to Kant, embodies
   (A) purposiveness without purpose.
   (B) purpose without purposiveness.
   (C) neither purpose nor purposiveness.
   (D) both purpose and purposiveness.

8. Alienation, according to Marx, is
   (A) a state of mind.
   (B) a social condition.
   (C) a product of imagination.
   (D) none of the above.

Suppose you had the following information:

Two collectors, A and B, are each selecting a group of wildlife prints from a group of seven
prints T, U, V, W, X, Y, and Z. No print can be in both groups. The selections made by A and B
are subject to following restrictions.

(i) If U is in A’s group, W must be in B’s group.
(ii) T and Z cannot be in the same group.
(iii) If X is in A’s group, Z must be in B’s group.
(iv) W and Y cannot be in the same group.

Now answer questions 9 - 13:

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9. If X is in A’s group, the one that cannot be in B’s group is
   (A) T
   (B) U
   (C) V
   (D) W

10. Which of the following pairs of groups selected by A and B conform to the restriction?

<table>
<thead>
<tr>
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<th>A</th>
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<tbody>
<tr>
<td>(A)</td>
<td>T, U, V</td>
<td>W, X, Y</td>
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<tr>
<td>(B)</td>
<td>T, U, Z</td>
<td>V, W, X</td>
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<td>(C)</td>
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<td>T, W, Y</td>
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<tr>
<td>(D)</td>
<td>V, W, X</td>
<td>U, Y, Z</td>
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</tbody>
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11. If U is in A’s group, which of the following is true?
   (A) T must be in A’s group.
   (B) Y must be in A’s group.
   (C) V must be in B’s group.
   (D) Y cannot be in B’s group.

12. If U and X are in A’s group, B’s group must consist of
   (A) T, W and Y
   (B) T, Y, and Z
   (C) V, W and Z
   (D) V, Y and Z

13. If T is in B’s group, which of the following is true?
   (A) U cannot be in A’s group.
   (B) X cannot be in A’s group.
   (C) Y cannot be in B’s group.
   (D) Z must be in B’s group.

14. In a formal proof of validity,
   (A) all the lines are self-evident.
   (B) no line is self-evident unless it is a tautology.
   (C) some lines are self-evident.
   (D) none of the above
Consider the following statements made.

Mita: Suman stole the pen.
Atul: Tony, Mita and I could not have stolen the pen.
Charlie: I have not seen the pen.
Tony: I have seen the pen and so has Atul.
Suman: Mita stole the pen. So, Tony, Atul and Charlie could not have.

15. If all the above statements are false, who stole the pen?

(A) Atul  
(B) Suman  
(C) Tony  
(D) none of the above

16. Choose the correct statement.

A: According to Sankara, the world is an appearance.
B: Sankara was the supporter of Parinama vada.

(A) A is right and B is wrong.  
(B) B is right and A is wrong.  
(C) Both are right.  
(D) Both are wrong.

17. “All that is real is knowable and expressible in language” is the view maintained by

(A) Sankara  
(B) Brhaspati  
(C) Jaimini  
(D) Prasastapada

18. “There is no colour in air” is an example of ...

(A) Anyonyabhava  
(B) Atyantabhava  
(C) Praghabhava  
(D) Dhvamsabhava

19. According to Advaita Vedanta, the validity of knowledge is ....

(A) svatah  
(B) paratah  
(C) Both svatah and paratah  
(D) neither svatah nor paratah
20. *Atmakhyati* is a theory of error maintained by ...

(A) Nyaya  
(B) Prabhakara Mimamsa  
(C) Yogacara Buddhism  
(D) Advaita Vedanta

21. Which one of the following is not a *Samkhya* argument for the existence of *Prakriti*?

(A) Bhedanam parimanat  
(B) Karanakarya vibhagat  
(C) Bhoktrabhvat  
(D) Samanvayat

22. Which of the following is the psychological ground for *anumana* according to Nyaya?

(A) Hetu  
(B) Paramarsa  
(C) Vyapti  
(D) Paksata

23. *Pramanavyavastha* and *pramanasamplava* are theories concerning ...

(A) the nature of prama.  
(B) the nature of pramana.  
(C) the nature of pramanya.  
(D) the number of pramanas.

24. *Pratyahara* according to yoga means ...

(A) control of diet.  
(B) control of senses.  
(C) control of mind.  
(D) control of posture.

25. Match the following:

(a) Nagarjuna  
(b) Shankara  
(c) Gautama Buddha  
(d) Ramanujacharya

(i) *Vishishtadvaita*  
(ii) *Four Noble Truths*  
(iii) *Madhyamika karika*  
(iv) *Viveka chudamani*

(A) iv, ii, iii, i  
(B) i, ii, iii, iv  
(C) iii, iv, ii, i  
(D) ii, iv, iii, i
Part B

Marks 15

The passage below is followed by questions based on its content. After reading the passage, choose the best answer to each question. Answer all questions on the basis of what is stated or implied in that passage. Each question is worth one mark.

In patients who have survived severe brain damage, judging the level of actual awareness has proved a difficult process. And the prognosis can sometimes mean the difference between life and death. New research suggests that some vegetative patients are capable of simple learning, a sign of consciousness in many who had failed other traditional cognitive tests.

To determine whether patients are in a minimally conscious state (in which there is some evidence of perception or intentional movement) or have sunk into a vegetative state (in which neither exists) doctors have traditionally used a battery of tests and observations. Many of them require some subjective interpretation, such as deciding whether a patient’s movements are purposeful or just random. “We want to have an objective way of knowing whether the other person has consciousness or not,” says Mariano Sigman, who directs the Integrative Neuroscience Laboratory at the University of Buenos Aires.

That desire stems in part from surprising neuroimaging work that showed that some vegetative patients, when asked to imagine performing physical tasks such as playing tennis, still had activity in premotor areas of their brains. In others, verbal cues sparked language sectors. A recent study found that about 40 percent of vegetative state diagnoses are incorrect.

To explore possible tests of consciousness in patients, Sigman and his colleagues turned to classical conditioning: they sounded a tone and then sent a light puff of air to the patient’s eye. The air puff would cause a patient to blink or flinch the eye, but after repeated trials over half an hour, many patients would begin to anticipate the puff, blinking an eye after only hearing the tone.

If two stimuli are delivered at exactly the same time, even snails will equate the stimuli. But the team actually delayed the puff after the tone by 500 milliseconds. To associate two stimuli separated by that time gap, “you need conscious processing,” says lead study author Tristan Bekinschtein of the Impaired Consciousness Research Group at the University of Cambridge. In fact, delaying the second stimulus by more than 200 milliseconds is enough to demonstrate some learning, he adds. By comparison, people under general anesthesia, considered to be entirely lacking awareness, showed no sign of such learning when given the tone and air-puff test.

The detection of learning, described in the September 20 Nature Neuroscience, also opens up questions about when patients should be classified as being in a persistent vegetative state, in which emergence is not predicted to be likely. (Terri Schiavo, the center of a heated national debate in 2005, was determined to be in such a state.) Decisions to end life support often depend on predictions of recovery and assessments of consciousness. If “someone shows the patients can learn,” Bekinschtein says, “I think it would be a very clear argument.”

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Indeed, the researchers found that learning ability accurately predicted the extent of recovery within the next year about 86 percent of the time. The neural reorganization that bypasses damaged parts of the brain “implies that there’s room for at least some recovery,” Bekinschtein notes.

The findings do not surprise everyone. Research using functional MRI on vegetative patients had already led John Whyte, principal investigator at the Neuro-Cognitive Rehabilitation Research Network at Thomas Jefferson University in Philadelphia, to question the designation system. It may be that “there is a firm line between vegetative and minimally conscious patients,” he observes. “But our tools are too crude to tell us who is on which side of the line.” Or it may be that categories of consciousness are not so easy to define.

The learning tests probably could not completely supplant fMRI. Joy Hirsch, a neuroscientist at Columbia University, says that “functional imaging is by far the tool of choice” in determining consciousness because it can reveal “cognitive processes that aren’t visible through (traditional) bedside tests.” But neuroimaging can be expensive and hard to come by in many places, note Bekinschtein, Sigman and their study collaborators. Much of the testing was completed in Argentina, where imaging capabilities can be less available than in the U.S, or U.K. For this test, “you just need two wires, and it costs $100 (Rs. 4,800),” Sigman states. “In practical terms, it has strong implications.”

(Excerpted from “Critical Consciousness”, Katherine Harman, Scientific American, December, 2009, p. 11)

1. New research in studies of conscious activities in patients with severe brain damage suggests

(A) a better way to distinguish between mentally alive and mentally dead patients.
(B) that our understanding as to how to distinguish vegetative from other patients is no better than the previous era.
(C) that judging the actual and potential level of awareness of a patient is very difficult.
(D) none of the above.

2. Old research correlated a minimally conscious state with

(A) evidence of perception.
(B) evidence of intentional movement.
(C) either (A) or (B) or both.
(D) none of the above.

3. A problem with the tests in the old research was the problem of determining

(A) whether the observed phenomena in the patient was purposive and genuine.
(B) whether the observed phenomena in the patient was random.
(C) both (A) and (B).
(D) none of the above.
4. The new research employing the neuroimaging techniques

(A) seems to show that all vegetative patients show some activity in the brain.
(B) seems to show that some vegetative patients show some activity in specific parts of the brain.
(C) is equally open to subjective interpretation as the old research is.
(D) all of the above. [    ]

5. In a classical conditioning-like experiment

(A) the patients were minimally conscious to anticipate the later stimulus when exposed to the prior stimulus.
(B) the behaviour of the patients can be best explained by ascribing minimal consciousness to them.
(C) the patients' blinking was ambiguous.
(D) None of the above can be inferred. [    ]

6. The snail example shows that the near simultaneity of administering stimuli

(A) may lead to an erroneous conclusion that snails have conscious life.
(B) may lead to an erroneous conclusion that human patients have conscious lives.
(C) Both (A) and (B)
(D) none of the above [    ]

7. If there is conscious processing in associating two stimuli, then

(A) the stimuli must be administered at least 200ms apart.
(B) the stimuli must be administered at most 500ms apart.
(C) the stimuli may be administered at any interval.
(D) None of the above [    ]

8. In a classical conditioning-like experiment

(A) while some vegetative patients showed sign of conscious activity, the people under general anesthesia showed conscious activity when the effect of anesthesia decreased.
(B) while some vegetative patients showed sign of conscious activity, the people under general anesthesia showed no such activity.
(C) while all vegetative patients showed sign of conscious activity, the people under general anesthesia showed no such activity.
(D) none of the above can be inferred. [    ]

9. The new research to the extent it can detect conscious activity like learning in vegetative patients can

(A) help arrive at a clearer classification of persistent vegetative state.
(B) do no better than the previous attempt at classification.
(C) only muddle the debate as to what is conscious activity.
10. Since the decision to end life-support system to vegetative patients is dependent on prediction of recovery and assessments of consciousness,

(A) the new research with neuroimaging is a step in the right direction.
(B) the previous research admitted ambiguity in the assessments of consciousness activity in patients and hence is less useful.
(C) both techniques may turn out to be useless in helping make that decision.
(D) Both (A) and (B) [ ]

11. The new research seems to help hypothesize

(A) that there may be a firm line between persistent vegetative state and minimally conscious state.
(B) that the tools to demarcate the persistent vegetative state and a minimally conscious state are still very crude at this moment.
(C) that the categories of consciousness are not easy to define.
(D) (A) + (B) + (C) [ ]

12. If categories of consciousness are not easy to define, then

(A) there may not be a tool available to firmly demarcate the persistent vegetative state and minimally conscious state.
(B) any tool that we use may only provide us with a tentative answer to the problem.
(C) the moral question of when to remove the life-support system cannot be resolved.
(D) (A) + (B) + (C) [ ]

13. The general data also shows that the learning ability result

(A) is strongly predictive of extent of recovery within one year.
(B) is predictive of excellent recovery.
(C) is predictive of no slipping into vegetative state.
(D) all of the above. [ ]

14. The functional MRI technique is one of the preferred tools because

(A) it is a non-invasive brain imaging technique which gives clues about cognitive activities.
(B) it is a technique which is favoured by the scientists.
(C) the old techniques are invasive techniques or folklore kind of techniques.
(D) none of the above [ ]

15. The classical conditioning technique is an important tool because

(A) it is non-invasive, bedside and very affordable.
(B) it can be set up in a poor country.
(C) the identification of conscious state is not easy anyway.
(D) none of the above.
Part C

Section 1

Write short notes on any three of the following in 250 words each. All questions carry equal marks.

1. What is khyati? Distinguish between asatkhyati and anyathakhyati.
2. Explain the reasons for having doubtful cognitions.
3. Elucidate the various stages involved in upamana as a pramana.
4. What are the arguments of Nyaya to prove the existence of the Self?
5. What is the place of tarka in Nyaya epistemology?
6. Was Locke justified in subscribing to the notion of Substance?
7. Why did Hume give more importance to Passions over Reason in morality?
8. How does Kant establish the objectivity of an absolute moral principle?
9. Bring out the distinction between the Humean and the Kantian analyses of causality.
10. Prove that a set of sentences, \( \Gamma \), in sentential logic (propositional logic) truth-functionally entails a sentence, \( P \), in sentential logic if and only if the set \( \Gamma \cup \{\sim P\} \) is truth-functionally inconsistent.

Section 2

Answer any two questions in 500 words each. All questions carry equal marks.

1. Critically evaluate Dravya as a category.
2. Does non-existence exist? Discuss.
3. What do you understand by Brahman?
4. What is incommensurability thesis? What are its implications?
5. Evaluate Locke’s distinction between Primary and Secondary qualities.
6. Discuss Wittgenstein’s idea of meaning as use.