### **Answers To Test Yourself Questions**

#### 1. What is the meaning of the following terms?

unconditioned stimulus a stimulus which elicits a reflexive

(unconditioned) response

conditioned stimulus a stimulus which by repeated

pairings with an unconditioned

stimulus comes to elicit a

conditioned response

unconditioned response a reflexive response produced by a

specific stimulus, such as pupil

contraction to bright light

conditioned response a response to a previously neutral

stimulus which has become a

conditioned stimulus by repeated

pairing with an unconditioned

stimulus

conditioned emotional response an emotional response such

as fear which is established

through classical

conditioning

# 2. What are the differences and similarities between classical and operant conditioning?

#### Similarities:

- Both classical and operant conditioning result in relatively permanent changes to behaviour as a result of prior experience.
- Both classical and operant conditioning involve processes of association.

 Both classical and operant conditioning show the phenomena of generalization, discrimination, and extinction.

#### Differences:

- Classical conditioning involves learning of elicited, involuntary behaviour (reflexes) while operant conditioning involves learning of emitted, voluntary behaviour.
- Classical conditioning is based on contiguity: it associates an unconditioned stimulus with a conditioned stimulus. Operant conditioning is based on contingency: it associates a response with a consequence.
- Extinction is achieved in classical conditioning by omission of the UCS which
  precedes the UCR; extinction is achieved in operant conditioning by the omission
  of the consequence which follows the response.

## 3. Why is punishment not recommended in reducing misbehaviour in children?

- Punishment is not as effective in changing behaviour as reinforcement.
- 2. Punishment gives no indication about what acceptable behaviour is.
- 3. Children may come to fear and resent the agent of punishment (classical conditioning: the punisher is associated with the punishment).
- 4. Children may come to regard the agent of punishment as a discriminative stimulus, and therefore avoid the unacceptable act while in the presence of this agent while continuing to perform the unacceptable act in the absence of the agent.
- Punishment must be given immediately after the unacceptable behaviour or it may be associated with the wrong response.

- Punishment only suppresses a behaviour; it does not remove it.
   Therefore, punishment must be given continuously to be effective.
- 7. Ethically, it is questionable whether aversive stimuli should be used with children.

## 4. How does biology constrain learning?

Some behaviours are highly related to the genetic makeup of the organism (e.g., species-specific behaviours). These behaviours are referred to as prepared and are emitted without applying learning contingencies (e.g., cats lick themselves after eating without being taught to do so; humans may easily become afraid of snakes or the dark with very little training). In fact, these behaviours may be highly resistant to learning (e.g., it would be very difficult to train a cat not to lick after eating). Other behaviours, contraprepared behaviours, are also highly resistant to learning because the physiological structure of the organism is not prepared to admit them (e.g., cats will typically not learn to lick themselves in order to obtain food; it is rare for a person to develop a fear of daisies)).