**6 Mark Questions**

**1.** Describe the “fight or flight” response by completing the following information: (6 marks)

a) Division of the autonomic nervous system: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b) Hormone responsible: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c) Source gland of hormone: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

d) Physiological effects:

i) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

ii)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

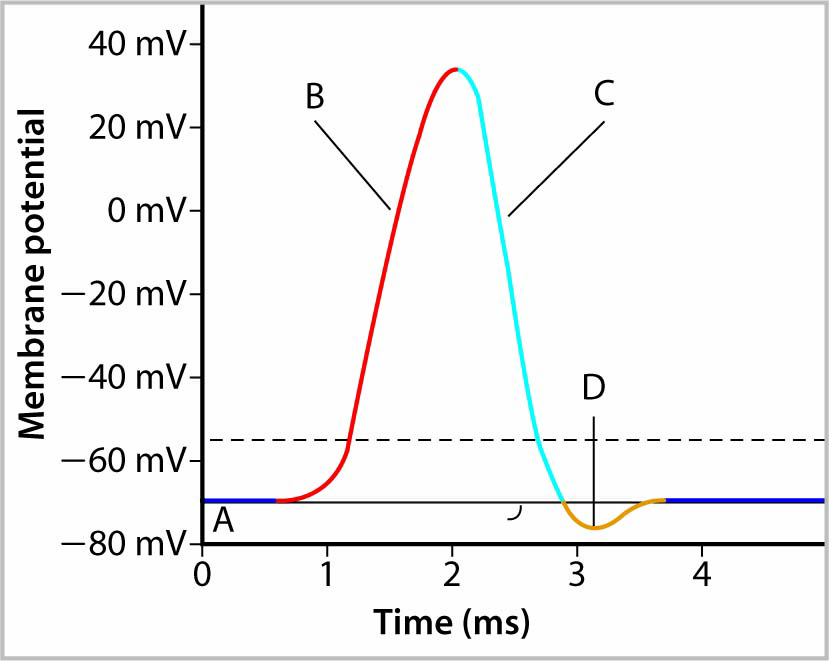
iii)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**2.** Explain how the neurotransmitters norepinephrine and acetylcholine interact in order to ensure that a person is prepared to respond to their environment in an appropriate way. (6 marks)

**4 Mark Questions**

**3.** Neurotransmitters have either an excitatory or inhibitory effect on the postsynaptic membrane. Describe these two effects and explain how the two effects operate to control neuron function. (4 marks)

**4. Use the diagram below to answer the next question.**

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Describe the events that occur within a motor neuron at each lettered position in the diagram. (4 marks)

**3 Mark Questions**

**5.** Sodium and potassium ions maintain the resting potential of a neuron despite the fact that both are positively charged ions. How is this accomplished? (3 marks)

**6.** Describe three ways that the circulatory system will respond to sympathetic nerve stimulation. (3 marks)