※ 考生請注意：本試題 □可 ☑不可 使用計算機

1. Using the knee-jerk reflex as an example (extensor and flexor muscles) to describe the roles of inhibitory inter-neurons in feed-forward inhibition and feedback inhibition. Provide a physiological example that you know for feed-forward inhibition and feedback inhibition (in addition to the above-mentioned knee-jerk reflex) and describe biological significance for each case (40%)

2. Explain the following terms (40%, 5% for each)

    2-1. Node of Ranvier
    2-2. Afferent neurons
    2-3. Ionotropic receptors
    2-4. Field EPSP
    2-5. Docking
    2-6. Presynaptic facilitation
    2-7. Thalamus
    2-8. Sensory receptors

3. Describe the design of the elevated plus maze and its application. (20%)