1. 請描述巴金森氏症患者及小腦損傷患者在<u>動作控制</u>與<u>動作學習上</u>的缺損(10 分)。 針對這些問題，治療師應如何修正治療模式以促進最佳訓練效果? (10 分)

2. 請比較多發性硬化症(multiple sclerosis)、肌萎縮性側索硬化症（Amyotrophic Lateral Sclerosis，ALS）及格林-巴利症候群(Guillain-Barre syndrome)三種疾病的病生理(pathophysiology)、臨床特徵(clinical manifestation)、及物理治療方式及注意事項。(30 分) **本大題請於試卷內之「非選擇題作答區」依照以下圖示依序作答。**

	多發性硬化症	肌萎縮性側索硬化症	格林-巴利症候群
病生理 (6 分)			
臨床特徵 (12 分)			
物理治療方式及注意事項 (12 分)			

3. 請闡述神經復健模型(neurologic rehabilitation models)中，Neurotherapeutic facilitation 及 Task-oriented approach 的定義以及兩者的差別 (15%)。 並以中風後下肢功能恢復舉出臨床實例 (10%)。

4. 請閱讀以下文章並回答問題:

As COVID-19 is transmitted via person-to-person contact, stroke patients undergoing outpatient rehabilitation therapy during the COVID-19 pandemic have an increased risk of infection, as contact with other people often cannot be avoided on the way to and from the hospital. As the frequency of contact increases, the probability of becoming infected with COVID-19 also increases. The first 6 months after a stroke is a crucial period for recovery, and subacute stroke patients with disabilities regularly undergo rehabilitation therapy at a hospital, which means that these patients have a higher risk of COVID-19. Here, we suggest the utilization of telerehabilitation for stroke patients to reduce their risk of infection.

Telerehabilitation refers to "providing rehabilitation service using electronic communication technologies"3. As such, rehabilitation therapy could be implemented remotely without the physician and patient meeting in person. While there are many rehabilitation therapy methods and programs based on telerehabilitation, they typically involve the medical staff checking the patient's condition, showing rehabilitation therapy examples to the patient or their guardian, and using photographs or videos to demonstrate how rehabilitation therapy should be performed. Motor, language, and cognitive functions can be assessed by video or by using specially designed programs.

見背面

Many studies have analyzed the effectiveness of telerehabilitation, with the majority reporting that telerehabilitation is comparable to in-clinic rehabilitation in terms of improving motor, language, and cognitive functions. In 2019, Cramer et al.[3] compared the effectiveness of home-based rehabilitation for stroke patients using telemedicine (62 patients) to that of in-clinic rehabilitation (62 patients). A total of 36 therapy sessions (70 minutes each) were designed to improve arm motor function. In this study, both therapy groups displayed significant improvements in arm motor function, showing that telerehabilitation was as effective as in-clinic rehabilitation.

Furthermore, over 50% of stroke patients have depression or anxiety.[4] Such psychological problems could be exacerbated during the COVID-19 pandemic, because patients are isolated from the wider community. Drug therapy and counseling must be provided to these patients. With telerehabilitation, patients can receive prescriptions for medication and counseling for psychological stabilization without visiting the hospital. The effectiveness of counseling by telemedicine has been demonstrated in many previous studies[5]. Such a service could significantly improve the mental health of stroke patients during the COVID-19 pandemic.

(1) 請詳述何謂 Telerehabilitation (10%)
(2) 本篇文章中提到，Telerehabilitation 有什麼效果 (10%)?
(3) 請論述 Telerehabilitation 的優缺點 (5%)

試題隨卷繳回