※ 考生請注意：本試題 □可 ☑不可 使用計算機

1. 解釋名詞：(每題 5%，共 20%)
   (1). prospective memory
   (2). work conditioning
   (3). shoulder impingement syndrome
   (4). amyotrophic lateral sclerosis

2. 請說明職能治療師如何以「由下而上(bottom-up approach)」或「由上而下(top-down approach)」的模式評估記憶損傷對腦傷個案的影響，並討論兩者之優缺點。(10%)

3. 針對各種生理疾病個案，試述職能治療師在選擇不同之治療模式或理論所考慮的原則為何。(10%)

4. 身為一職能治療師，試就此個案研究回答下列問題：(20%)

Miss H. is a 39-year-old single mother of a 5-year-old girl. They live in a 2-bedroom rented apartment. She has converted her dining area into a home office, where she carries out her home-based business in desktop publishing. Miss H. drives her daughter to preschool each morning and shops on the way home before working for the rest of the day from home. Miss H. had abrupt onset of left-sided weakness 2 weeks ago. She was hospitalized quickly and diagnosed with right frontal-parietal infarction. Miss H. is unable to move or feel the left side of her body, has a left visual field cut, and tends to not respond to sensory stimuli on the left side of her body. Nurses are lifting Miss H. out of bed and providing full assistance for self-care and mobility. Her daughter is under the care of Miss H.'s friends. Miss H. has been crying often and is concerned that she will not be able to work or take care of her daughter. Miss H. is referred to occupational therapy for further evaluation and treatment.

(1). 針對此個案，列舉三項最優先需要執行的評估（需簡述施測方式）及理由。(6%)
(2). 根據職能治療執業架構（Occupational Therapy Practice Framework），此個案受損的身體功能和身體結構（body functions and body structures）如何影響其回復發病前生活型態的能力？（8%）
(3). 根據職能治療執業架構，職能治療針對此個案之職能領域表現(performance in areas of occupation）的介入所依據的主要參考架構為何？你所運用的臨床推理為何？（6%）

(背面仍有題目,請繼續作答)

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5. 請閱讀下列研究摘要，並回答問題。(20%)

Clark,F., Azen, S. P., Zemke, R., Jackson, J., Carlson, M., Mandel, D., Hay, J., et al. (1997). Occupational therapy for independent-living older adults: A randomized controlled trial. *Journal of the American Medical Association, 278,* 1321-1326.

CONTEXT: Preventive health programs may mitigate against the health risks of older adulthood.
OBJECTIVE: To evaluate the effectiveness of preventive occupational therapy (OT) services specifically tailored for multiethnic, independent-living older adults.
DESIGN: A randomized controlled trial.
SETTING: Two government subsidized apartment complexes for independent-living older adults.
SUBJECTS: A total of 361 culturally diverse volunteers aged 60 years or older.
INTERVENTION: An OT group, a social activity control group, and a nontreatment control group. The period of treatment was 9 months.
MAIN OUTCOME MEASURES: A battery of self-administered questionnaires designed to measure physical and social function, self-rated health, life satisfaction, and depressive symptoms.
RESULTS: Benefit attributable to OT treatment was found for the quality of interaction scale on the Functional Status Questionnaire (P=.03), Life Satisfaction Index-Z (P=.03), Medical Outcomes Study Health Perception Survey (P=.05), and for 7 of 8 scales on the RAND 36-Item Health Status Survey, Short Form: bodily pain (P=.03), physical functioning (P=.008), role limitations attributable to health problems (P=.02), vitality (P=.004), social functioning (P=.05), role limitations attributable to emotional problems (P=.05), and general mental health (P=.02).
CONCLUSIONS: Significant benefits for the OT preventive treatment group were found across various health, function, and quality-of-life domains. Because the control groups tended to decline over the study interval, our results suggest that preventive health programs based on OT may mitigate against the health risks of older adulthood.

(1). 請簡單說明本研究的主旨和實驗設計。(5%)
(2). 請說明本研究的自變項（independent variables）和依變項（dependent variables）。(5%)
(3). 請說明本研究的主要結果及其可提供的臨床建議和價值。(10%)

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6. 請閱讀下列研究摘要，並回答問題。(20%)

Masiero, S., Celia, A., Rosati, G., & Armani, M. (2007). Robotic-assisted rehabilitation of the upper limb after acute stroke. *Archives of Physical Medicine and Rehabilitation, 88,* 142-149.

OBJECTIVE: To investigate whether early therapy with a novel robotic device can reduce motor impairment and enhance functional recovery of poststroke patients with hemiparetic and hemiplegic upper limb.

DESIGN: A single-blind randomized controlled trial, with an 8-month follow-up.

SETTING: Neurologic department and rehabilitation hospital.

PARTICIPANTS: Thirty-five patients with acute (< or =1 wk of onset), unilateral, ischemic embolic, or thrombotic stroke.

INTERVENTIONS: Patients of both groups received the same dose and length per day of standard poststroke multidisciplinary rehabilitation. Patients were randomly assigned to 2 groups. The experimental group (n=17) received additional early sensorimotor robotic training, 4 hours a week for 5 weeks; the control group (n=18) was exposed to the robotic device, 30 minutes a week, twice a week, but the exercises were performed with the unimpaired upper limb. Training by robot consisted of peripheral manipulation of the shoulder and elbow of the impaired limb, correlated with visual stimuli.

MAIN OUTCOME MEASURES: The Fugl-Meyer Assessment (FMA) of upper-extremity function (shoulder/elbow and coordination and wrist/hand subsections) to measure each trained limb segment; the Medical Research Council (MRC) score to measure the strength of muscle force during 3 actions: shoulder abduction (MRC deltoid), elbow flexion (MRC biceps), and wrist flexion (MRC wrist flexors); the FIM instrument and its motor component; and the Trunk Control Test (TCT) and Modified Ashworth Scale (MAS).

RESULTS: Compared with the patients in the control group, the experimental group showed significant gains in motor impairment and functional recovery of the upper limb after robot therapy, as measured by the MRC deltoid (P< or =.05) and biceps (P<.05) scores, the FMA for the proximal upper arm (P<.05), the FIM instrument (P<.05), and the FIM motor score (P<.01); these gains were also sustained at the 3- and 8-month follow-up. The FMA and MRC wrist flexor test findings did not differ statistically either at the end of training or at the follow-up sessions. We found no significant differences in MAS and TCT in either group in any of the evaluations. No adverse effects occurred and the robotic approach was very well accepted.

CONCLUSIONS: Patients who received robotic therapy in addition to conventional therapy showed greater reductions in motor impairment and improvements in functional abilities. Robotic therapy may therefore effectively complement standard rehabilitation from the start, by providing therapeutic support for patients with poststroke plegic and paretic upper limb.

(1). 請簡單說明本研究所使用的治療方法為何。(5%)

(2). 請說明本研究如何驗證此療法的療效及其所根據的理由。(5%)

(3). 請簡單評論本研究，並由職能治療的觀點討論此療法之臨床應用價值。(10%)