NTIT 國立臺中技術學院　系所：資訊科技與應用研究所碩士在職專班　准考證號碼：

98 學年度碩士班考試入學暨碩士在職專班試題　　科目：**論文閱讀能力與分析**

注意事項：

1. 【答案】請書寫於答案卷上，且不可書寫任何可辨別個人姓名或特殊標記，違反者以零分計算。
2. 答案卷書寫題號依序作答，不必抄題。
3. 請於試題紙上填寫准考證號碼，繳卷時「試題」、「答案卷」一併繳回。

(一)科技類：

一、 是非題(每題 2.5 分，共 25 分)

1. Due to the physical limitations such as time-consuming seeks and rotations of microprocessors, performance improvements for modern microprocessors have significantly lagged behind those of modern disks.

2. Benchmarks show that there is no single disk scheduler that could provide good performance consistently under varying conditions.

3. Intelligent I/O scheduler techniques are effectively used in self-learning disk schedulers to automate the scheduling policy selection and optimization processes.

4. In training phase of Per-request scheduler, train the system with sophisticated workloads and build the response time estimation model.

5. The decision and feedback phase of Per-request scheduler are almost the same as in Feedback Learning; except that the decision is performed at the request level.

6. Machine learning techniques are effectively used in self-learning disk schedulers for I/O schedulers.

7. Self-learning scheduler provides optimal performance for users across all workloads, file systems, disks, tunable parameters, and CPUs.

8. An example of quality of service (QoS) - it may associate each workload with a priority number, and the workloads with higher priority numbers could share larger portions of disk storage size.

9. In training phase of Per-request scheduler, the jump-start method is feed the system with real-world requests and start decision phase.

10. The training phase makes classification model.

二、 選擇題(每題 2.5 分，共 25 分)

11. Which method can measure the accuracies of all machine learning algorithms?
    (1) SVM (2) Logistic regression (3) K-fold cross-validation (4) naive Bayes classifier

12. Which method is not Classic I/O scheduler?
    (1) First-In, First-Out (2) Earliest Deadline First (3) Shortest Total Access Time First
    (4) Two-layer Learning Scheme

13. Which phase in Feedback Learning Algorithm can be used by offline and online?
    (1) decision phase (2) training phase (3) feedback phase (4) I/O phase

14. Which machine learning algorithm is omitted in this paper?
    (1) SVM (2) Neural networks (3) K-nearest neighbor algorithm (4) C4.5 decision tree algorithm

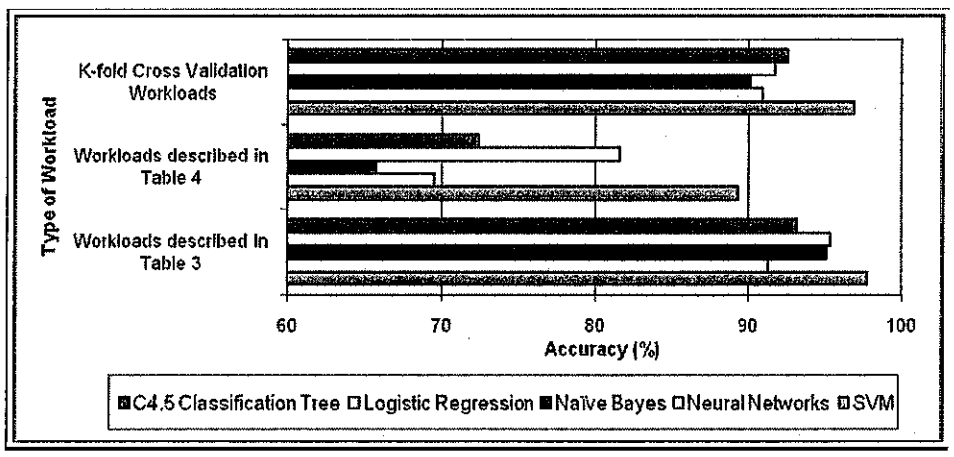
15. Which is not performance data in disk?
    (1) Accuracy (2) Workload (3) Throughput (4) Response time

16. Which is not objective for the proposed self-learning scheduler design?
(1) Maximum performance (2) Fairness (3) Accurate classification and tuning
(4) High overhead and fast decision

17. In Feedback Learning Algorithm, which is not used?
(1) Synthetic Workload (2) Response Time (3) Throughput (4) Estimate Response Time

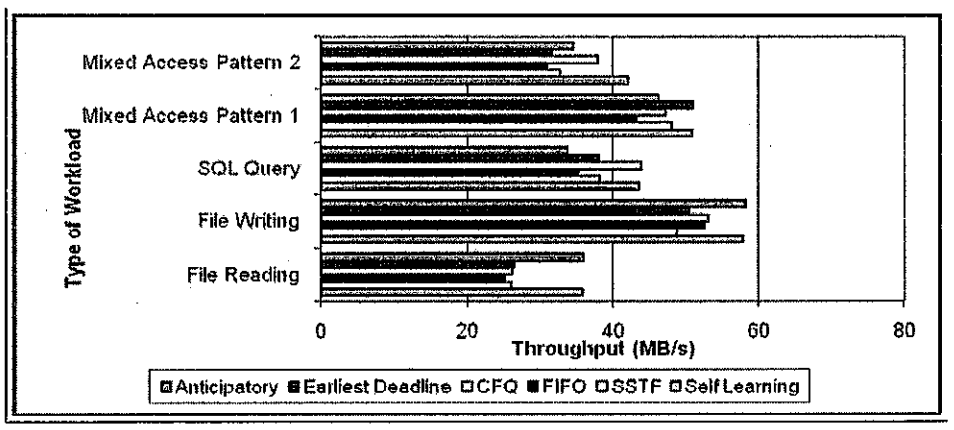
18. Why do disk scheduler?
(1) Provides the higher Response Time and higher Throughput
(2) Provides the higher Response Time and lower Throughput
(3) Provides the lower Response Time and lower Throughput
(4) Provides the lower Response Time and higher Throughput

19. In this figure, which is wrong?



(1) This can be expected because learning algorithms achieve high accuracy when training data and test data are identical.
(2) Among the five algorithms, the SVM algorithm provides the best accuracy.
(3) Figure shows the accuracies of the five learning algorithms.
(4) The naive Bayes algorithm has the lowest CPU utilization ratio.

20. In this figure, which is right?



(1) Figure shows the throughput of the six machine learning algorithms.
(2) Self-learning scheduler provide the best throughput.
(3) Figure shows file reading has shorter response time than other workloads.
(4) Figure shows file reading has better accuracies than other workloads

(二) 管理類：(選擇題每題 5 分，共 50 分)

21. 本篇論文主要探討以何種電子商務模式為例，去解釋以及驗證作者所提出之方法論？
(1) B2B (2) B2C (3) C2B (4) C2C

22. 以往的電子商務應用程式開發方法，譬如 e-Commerce Development Method, Web IS Development Methodology 以及 Internet Commerce Development Methodology，無法提供何種功能？
(1) 概念式開發架構 (2) 圖形化工具 (3) 配合企業策略 (4) 整合企業主要活動

23. 虛擬價值鏈(virtual value chain)不包括下列哪項功能？
(1) 收集資訊 (2) 分類資訊 (3) 選擇有價值的資訊 (4) 傳播資訊

24. ECDM, WISDM 的電子商務應用開發模式主要是改善下列哪項功能？
(1)增強 UML 描述(2)強調企業與市場價值(3)增強人機介面互動(4)重視資訊安全

25. 顧客決策過程(customer decision process)中，那項過程可以讓賣家提升顧客的忠誠度？
(1) 確認需求 (2) 資訊蒐集 (3) 評估方案 (4) 售後服務

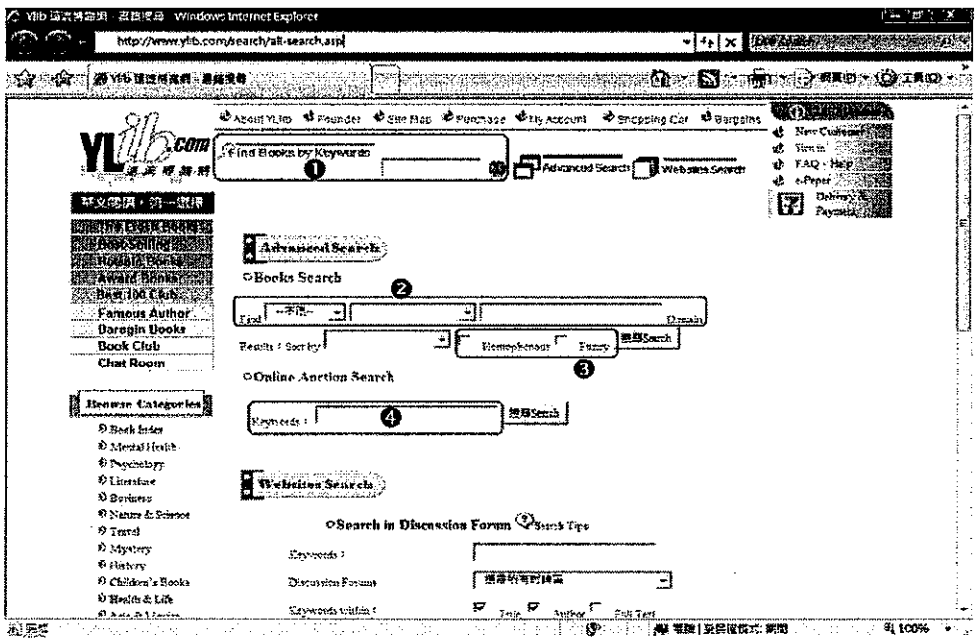
26. 本文作者所提出之目標導向(goal-driven)方法去建議管理者擬訂 EC 策略，其中的「系統需求引導階段」並不包含下列哪項活動？
(1) 確認主要 e 化服務 (2) 發展目標導向使用個案塑模 (3) 評估目標 (4) 整合不同方案

27. 智慧型代理人運用於個案公司(YLib.com)線上書局的功能，並不包括哪項服務？
(1) 蒐集產品資訊 (2) 記錄讀者瀏覽網頁路徑 (3) 進行產品比價 (4) 可整合於關鍵附加價值活動

28. YLib.com 個案公司在於顧客決策過程中，哪項不是屬於關鍵的主要活動？
(1) 確認需求 (2) 資訊蒐集 (3) 評估方案 (4) 售後服務

29. 在本文的使用個案塑模方法中，「關鍵字搜尋」與「模糊搜尋」的關係為？
(1) 延伸 (2) 包含 (3) 一般化 (4) 整合

30. 圖 6 顯示 YLib.com 的搜尋引擎網頁，其中包含了「關鍵字搜尋」、「進階蒐尋」、「模糊蒐尋」以及「線上拍賣蒐尋」等功能，而這些功能是在 ECVM 中的哪項 e-Service？
(1) NR_Gather (2) IS_Select (3) IS_Distribute (4) PP_Synthesize



Legend: ❶= keyword-based search ❷= advanced search; ❸=fuzzy search ❹= online auction search

Fig. 6. Screen shot of the search engine page on the YLibCom website.