Agriculture Development Bank Ltd.
Written test for the Computer Engineer (Hardware)
(Officer Level, Third Class)
2067/6/2

Paper: Second (Service related)

Time: 3:00 hrs   **Full marks: 100**

Answer the questions

1. What is multi-core architecture? Differentiate between core architecture and Hyper Threading technology.
2. Compare RISC'and CISC machines.
3. What are the main characteristics of VLIW architecture? Explain in brief.
4. What are the pipeline hazards? Enumerate and briefly explain three types of pipeline hazards.
5. What do you understand by operating system deadlock? List the Coffman's conditions that lead to a deadlock.
6. Explain the popular multiprocessor thread-scheduling strategies.
7. What are the eight dimensions of transparencey in distributed systems? Explain?
8. What are the different types of networking/interworking devices? Briefly explain.
9. Describe the steps taken by the client and DHCP server in order to obtain an IP address?
10. What is the difference between packet-switching with cir switching technologies.
11. Why DSL is inore popular as compared with ISDN?
12. What do you understand by digital singature? How does it work?
13. What problems can occer which part of the address spae of a computer is used for a stock?
14. State why addresses are so important to the function of a processor?
15. What resoruces are used when a thread is created? How do they differ from those when a process is created?
16. What is the cause of thrashing? How does the system detect thrashing? Once it detects thrashing, what can the system do to eliminate this problem?
17. What is the important aspect of a real time system or Mission Critical Systems?
18. When a customer of ADBL uses a ATM uses a ATM to get cash, is this a message authentication an entity authentication or both?
19. What is the difference between a session and a connection in Secure Socket Layer (SSL)?
20. ADBL is going is use Core Banking System (CBS), ADBL has 249 offices including one head office and ten regional offices all over the country. Discuss what kind of database system, Network type, Security and Communication System CBS should have in order to provide 24/7 services to its valuable customers any where within the country with minium downtime.

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