**算法设计与分析第九章作业**

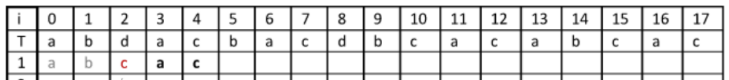
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| **姓名** | **王铭** | **班级** | **5** | **学号** | 190110509 |
| **第1题** |  | | | | |
| **第2题** |  | | | | |
| **第3题** |  | | | | |
| **第4题** |  | | | | |
| **第5题** |  | | | | |
| **总分** |  | | | | |
| **备注** | 超过提交截至时间的作业视为无效。确因网络等特殊原因无法及时提交作业的学生，应至少提前1小时与助教联系沟通。作业文件名命名方式： 第x章-x班-姓名-学号（例， 第1章-1班-张三-2018054000.doc）； 邮件主题为：第x章作业, x班，姓名，学号（例， 第1章作业，1班，张三，2018054000）。缺少这些信息的作业将被酌情扣分。 | | | | |

1根据KMP算法中pi数组的计算方法，求串S= ‘babab ' 的pi 数值序列。

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | b | a | b | a | B |
| pi | 0 | 0 | 1 | 2 | 3 |

2.

1. 写出BMH算法的偏移表计算公式。
2. 使用BMH算法补全下面的匹配过程（写出每一步的匹配过程即可）。



(1)



(2)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| i | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| T | a | B | d | a | c | b | a | c | d | b | c | a | c | a | b | c | a | c |
| 1 | a | b | c | a | c |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 |  |  | a | b | c | a | c |  |  |  |  |  |  |  |  |  |  |  |
| 3 |  |  |  | a | b | c | a | c |  |  |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  | a | b | c | a | c |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  | a | b | c | a | c |  |  |  |  |  |
| 6 |  |  |  |  |  |  |  |  |  |  | a | b | c | a | c |  |  |  |
| 7 |  |  |  |  |  |  |  |  |  |  |  |  | a | b | c | a | c |  |
| 8 |  |  |  |  |  |  |  |  |  |  |  |  |  | a | b | c | a | c |