Distribution of Marks

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| Unit No. | Unit Name | Marks |
| 1. | Programming and Computational Thinking - 2 | 50 |
| 2. | Computer Networks | 20 |
| Total | | 70 |

Marking Scheme

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | A | String, List, tuple, Dictionary | 2 |
|  | B | math, random | 1 |
|  | C | Number = 250  while Number <= 1000:  if Number >= 750:  print(Number)  Number = Number + 100  else:  print(Number \* 2)  Number = Number + 50 | 2 |
|  | D | 2 marks for correct ans | 2 |
|  | E | 3 marks for correct ans | 3 |
|  | F | 2 marks for correct ans | 2 |
| 2 | A | Scope | 2 |
|  | B | Affects original argument or not  OR  A,b,c = abc() | 2 |
|  | C | Positional, default, keyword argument | 4 |
|  | D | Function calling itself, base case stop recursion and recursive case continues calling 2 marks for correct program  OR  4 marks for correct ans | 4 |
| 3 | A | ABC\*DEF^/G\*-H\*+  OR  False | 3 |
|  | B | Define Function and its advantage - reusability  OR  In terms of Stack and time. | 2 |
|  | C | Define and internal and external factor like space and time  OR  [“Even”,”Odd”, “Even”,”Odd”, “Even”,”Odd”, “Even”,”Odd”, “Even”,”Odd”] | 3 |
|  | D | HYE$2020  [‘I L’, ‘ve Pyth’, ‘n’]  “I Love Programming”  5.556  OR  4 marks for correct logic | 4 |
| 4 | A | 1 for opening of file  1 for loop  1 for if condition and count  OR  20, 20, 31, 56, 89 | 3 |
|  | B | 2 differences  OR  Using loop traverse from front to rear or vice - versa | 2 |
|  | C | For one difference one mark  OR  Enqueue, Dequeue | 1 |
| 5 | A | O(n) | 3 |
|  | B | Create an array in range 1 to 20 with values 1.25 apart. Another array contains the log values of the elements in first array.   1. Simply plot the two arrays first vs second in a line chat. 2. Specify the x axis title as ‘Random Values’ and y axis title as ‘Log Values’ 3. Create third array that stores the cos values of first array and then plot both the second and third array vs first array. The cos values should be plotted with a dashdotted line. 4. Change the marker type as a circle with blue colour in second array. 5. Only mark the data point as this: second array data points as blue small diamonds, third array data points as black circles. | 5 |
| 6 | A | Differentiate LAN and WAN. | 2 |
|  | B | File Transfer Protocol  Simple Mail Transfer Protocol  Voice over Internet Protocol  American Standard code for Information Interchange | 2 |
|  | C | Proper explanation of point to point Networking. | 1 |
|  | D | Internet of Things. Almost all devices of daily use surrounding us. | 3 |
|  | E | Private, public, community and hybrid cloud | 2 |
| 7 | A | Arun’s email has been attacked with spam.  These may be promotional mails from different advertisement groups. Arun must have checked some promotional offers while surfing the Internet.  He should create filters in his email to stop receiving these unwanted mails.  (1 Mark for writing correct Answer)  (1 Mark for writing correct Justification to prevent Spam) | 2 |
|  | B | LAN(Local Area Network) (1 Mark for writing correct Answer) | 1 |
|  | C | Guided media uses cables to connect computers, whereas unguided media uses waves. (1 Mark for writing any correct difference between guided and unguided media) | 1 |
|  | D | 1. Code Division Multiple Access 2. Hyper Text Transfer Protocol 3. Extensible Markup Language 4. Uniform Resource Locator   ( ½ Mark for writing each correct expansion) | 2 |
|  | E | Best wired medium: Optical Fibre OR CAT5 OR CAT6 OR CAT7 OR CAT8 OR Ethernet Cable  Wing Senior S  Firewall  Wifi Router | 4 |