

**Applied Information Technology**

**UNIT 1**

# **2018**

**MARKING GUIDE**

 Please note that the following notes are guidelines only and are intended

 to provide a common reference for markers. They are in no way to be

 considered as an exhaustive guide or checklist for the marking of this exam.

**Section One: Multiple choice 15% (15 Marks)**

|  |  |
| --- | --- |
| **Question** | **Answer** |
| 1 | B |
| 2 | D |
| 3 | C |
| 4 | A |
| 5 | D |
| 6 | A |
| 7 | B |
| 8 | C |
| 9 | A |
| 10 | D |
| 11 | B |
| 12 | A |
| 13 | D |
| 14 | D |
| 15 | B |

**Section Two: Short Answer 25% (78 Marks)**

**Question 16**

(a) (3 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Hardware Component  |  |
| Definition: The physical components… | 1 |
| …of a computing system (computer/device) | 1 |
| Example: CPU  | 1 |
| *Also accept: RAM, Motherboard, Storage or any other hardware component* |  |
| **Total** | **3** |

(b) (3 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Operating System |  |
| Definition: Software that manages hardware…  | 1 |
| …and applications running on the system. | 1 |
| Example: Windows, (Mac OS, iOS, Android, Linux)  | 1 |
| *Accept any example of an OS (1 required) and the definition may include – provide UI, manage resources, provide services.* |  |
| **Total** | **3** |

(c) (3 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Application |  |
| Definition: Application software are programs written in various code… | 1 |
| …that are productive for the users. | 1 |
| Example: Word (Outlook, PowerPoint, Excel…) | 1 |
| *Accept any valid application* |  |
| **Total** | **3** |

**Question 17**

(a) (6 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Benefit One: Gives Creators credit for their works… | 1 |
| ...and protects them from exploitation or enables the creator to manage how the product is used | 1 |
|  |  |
| Benefit Two: Allows creators to assign value to their works… | 1 |
| …potentially allowing for monetary rewards for the creator | 1 |
|  |  |
| Benefit Three: From the protection of their works… | 1 |
| …creators (and others) are encouraged to produce more innovative works that can be of benefit to all. | 1 |
|  |  |
| **Total** | **6** |

(b) (4 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Example One: Where you use copyright material for research or study… | 1 |
| …provided that it is not a complete copy of the material | 1 |
|  |  |
| Example Two: For criticism and review… | 1 |
| …provided they acknowledge the creator. | 1 |
|  |  |
| *Accept: News Reporting, Parody/satire, Legal advice.* |  |
| **Total** | **4** |

(c) (4 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Part One: Organisation responsible for the website | 1 |
| Part Two: Year – creation date or last update | 1 |
| Part Three: Access date | 1 |
| Part Four: URL of website | 1 |
| **Total** | **4** |

**Question 18**

(a) (4 marks)

Resources

Audio

Graphics

Background.mp3

Birds.wav

Raster

Sky.png

Flight.gif

Tree.bmp

Vector

Poster.svg

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Shows difference between audio and graphic files. | 1 |
| Distinguishes between vector and raster. | 1 |
| Places files in correct folder (-1 for each error). | 2 |
| *Note: Can vary this with .gif files being classified as animation files.**Lossy and Lossless can be accepted but this is mentioned in Unit 2 Syllabus.* |  |
| **Total** | **4** |

(b) (3 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Description One – Poster.svg | 1 |
| Description Two – Sky.png | 1 |
| Description Three – Flight.gif | 1 |
| *Note: Accept GIF for description Two – although PNG is best answer.* |  |
| **Total** | **3** |

(c) (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Vector – based on mathematical calculations. | 1 |
| Raster – based on pixels. | 1 |
|  |  |
| *Accept reference to smooth curves (vector) and jagged edges (Raster).* |  |
| **Total** | **2** |

**Question 19**

(a) (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| One: Enhancements to software features and operations | 1 |
| Two: Fixes to bugs and errors in the software. | 1 |
| *Accept: Security enhancements or compatible with other upgraded technologies or part of innovation to stay ahead of the competition.* |  |
| **Total** | **2** |

(b) (3 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Implement an on-premise update server…  | 1 |
| …that downloads updates from the internet once… | 1 |
| …client devices connect to the update server and receive their updates without needing the internet. | 1 |
| **Total** | **3** |

(c) (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Under Open source software, the code is available for users to change… | 1 |
| …whereas for Closed source software, the code cannot be altered. | 1 |
| **Total** | **2** |

(d) (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Public Creates Updates: Linux distributions | 1 |
| Developer Creates Updates: Windows 10 (MacOS, iOS, Most Android). | 1 |
| **Total** | **2** |

**Question 20**

(a) (6 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| One: Assume everyone has access to your profile…  | 1 |
| …so you only behave as if everyone is watching | 1 |
|  |  |
| Two: Use discretion when uploading images… | 1 |
| …although funny at the time, these may cause embarrassment or harm later or have permission from people if uploading images of other people | 1 |
|  |  |
| Three: Be aware of who your “friends” are… | 1 |
| …do not add friends who are not known to you or remember you may be judged on what friends post | 1 |
|  |  |
| *Accept: Be wary of strangers contacting you, do not post offensive content.* |  |
| **Total** | **6** |

(b) (8 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| One: Exclusion | 1 |
| The deliberate act of leaving someone out | 1 |
|  |  |
| Two: Harassment | 1 |
| A sustained, constant and intentional messaging which is usually malicious in nature | 1 |
|  |  |
| Three: Outing | 1 |
| Publicly embarrassing or humiliating someone online | 1 |
|  |  |
| Four: Trolling | 1 |
| The deliberate act of provoking a response through the use of insults or bad language on online forums and social networking sites. | 1 |
| *Accept other forms with explanations – Flaming, Stalking, Frapping etc.* |  |
| **Total** | **8** |

(c) (4 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| One: Ignore any cyberbullying… | 1 |
| …without a reaction it may pass | 1 |
|  |  |
| Two: Report the bullying to the Social Networking site… | 1 |
| …to have the posts removed. | 1 |
|  |  |
| *Accept: Contacting the Police/School if enough details are known or tell your parents.* |  |
| **Total** | **4** |

**Question 21**

(a) (3 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Elements are the actual components of a design… | 1 |
| …they are those items placed on a page that enhance the design itself | 1 |
| Principles are what the designer does with the elements to achieve an outcome. | 1 |
|  |  |
| **Total** | **3** |

(b) (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Typography is the arrangement of type (letters)… | 1 |
| …to make it legible and appealing when read. | 1 |
| **Total** | **2** |

(c) (6 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Aspect One: Typeface | 1 |
| Example: Comic Sans can be used in a comical publication | 1 |
|  |  |
| Aspect Two: Size | 1 |
| Example: Larger text can indicate headings/importance | 1 |
|  |  |
| Aspect Three: Alignment | 1 |
| Margins can be used to separate bodies of text from other elements. | 1 |
| *Note: Accept Spacing, Format.* |  |
| **Total** | **6** |

**Question 22**

(a) (5 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| =HLOOKUP(A13,A3:F9,4,FALSE) |  |
| Lookup Value A13 | 1 |
| Table array A3:F9 | 1 |
| Row number 4 | 1 |
| Range lookup False (or 0) | 1 |
| Correct use of syntax - , : and () | 1 |
|  |  |
| **Total** | **5** |

(b) (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| VLOOKUP is used when you need to look up a value in one column and find a corresponding value on the same row… | 1 |
| …so data that is in long columns of data with related data in rows across is where VLOOKUP is preferred. | 1 |
|  |  |
| **Total** | **2** |

(c) (1 mark)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| …the row number is incorrect – 2 instead of 4. | 1 |
| *Note: Accept reasonable definitions along these lines.* |  |
| **Total** | **1** |

**Section Three: Extended Answer 20% (24 Marks)**

**Question 23**

(a) (4 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Primary Storage is RAM… | 1 |
| …volatile working memory of CPU and applications | 1 |
|  |  |
| Secondary Storage is the hard drive (or floppy disk)…  | 1 |
| …non-volatile memory used for storage of data. | 1 |
|  |  |
| **Total** | **4** |

(b) (3 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| One: Keyboard | 1 |
| Two: Joystick | 1 |
| Three: Floppy Drive | 1 |
|  |  |
| **Total** | **3** |

(c) (1 mark)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| On the Hard Disk – secondary storage | 1 |
|  |  |
| **Total** | **1** |

(d) (8 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Function One: Provides a User Interface | 1 |
| Example: Windows desktop | 1 |
|  |  |
| Function Two: Manages System Resources | 1 |
| Example: Windows task manager allows processes to be ended | 1 |
|  |  |
| Function Three: Managing security and access rights | 1 |
| Example: Setting file permissions for different users | 1 |
|  |  |
| Function Four: Runs applications | 1 |
| Examples: the OS allows for the installation of applications like Word. | 1 |
| **Total** | **8** |

(e) (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| One: Source an old Commodore 64 computer or 8-bit compatible hardware | 1 |
| Two: Run an 8-bit emulator within your 64-bit device. | 1 |
|  |  |
| **Total** | **2** |

(f) (6 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| GUI  |  |
| Smart Phone: Icon driven touch enabled | 1 |
| Laptop: Menu driven – more text in the menu items | 1 |
|  |  |
| Applications |  |
| Smart Phone: Limited features with small footprint | 1 |
| Laptop: Full featured applications | 1 |
|  |  |
| Connection to Peripherals |  |
| Smart Phone: Bluetooth | 1 |
| Laptop: USB/HDMI/Bluetooth – i.e. a variety. | 1 |
|  |  |
| **Total** | **6** |

**Section Four: Scenario 40% (54 Marks)**

**Question 24**

(a) (8 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Component One: Colour palettes… | 1 |
| …the colour scheme used through the App | 1 |
|  |  |
| Component Two: Layout or Grid systems… | 1 |
| …for the consistent layout of components | 1 |
|  |  |
| Component Three: Contents/Menus… | 1 |
| How the navigation choices will be presented | 1 |
|  |  |
| Component Four: Typography aspects… | 1 |
| …Heading, subheading body text styles. | 1 |
|  |  |
| *Note: Accept any reasonable style guide relating to App design.* |  |
| **Total** | **8** |

(b) (3 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Situation Analysis allows for a design team to examine external factors to their project… | 1 |
| …examining the market to determine if there are already similar devices on sale… | 1 |
| …together with economic conditions into the future to see if the project is economically viable. | 1 |
| *Accept any reasonable external factor.* |  |
| **Total** | **3** |

(c) (4 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Criteria One: The App must have seamless integration with different wearable devices… | 1 |
| …so that the connection process is smooth and done in a timely fashion | 1 |
| Criteria Two: The menu items must be icon driven… | 1 |
| …so people exercising can quickly switch menus. | 1 |
| *Accept any reasonable criteria.* |  |
| **Total** | **4** |

(d) (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| The Target Audience is the demographic of people… | 1 |
| …that are most likely to be interested in using the product. | 1 |
|  |  |
| **Total** | **2** |

(e) (6 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Characteristic One: Users are interested in fitness and health… | 1 |
| …and are looking to monitor and record their progress/history | 1 |
|  |
| Characteristic Two: The TA is tech savvy… | 1 |
| … and will embrace the mobile device/wearable combination | 1 |
|  |
| Characteristic Three: The TA doesn’t mind spending money on devices… | 1 |
| …and the cross-platform nature of the App will be appealing. | 1 |
|  |
| *Accept any characteristic that will be relevant to this situation.* |  |
| **Total** | **6** |

(f) (14 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| (i) Correct positioning… | 1 |
|  …with reference to Reading Gravity | 1 |
|  |
| (ii) Two elements are clearly shown… | 2 |
|  …each element is matched to a valid principle | 2 |
|  |  |
| (iii) Two characteristics referenced in design… | 2 |
|  …with relevant explanation. | 2 |
| *For Example: “My History” button – for TA who likes to record/review statistics.* |  |
|  |  |
| (iv) A connect to wearable link… | 1 |
|  …at bottom right in the terminal area | 1 |
| *The above is an example – accept any reasonable consideration.* |  |
|  |  |
| (v) Bold Heading for App… | 1 |
|  …provides emphasis. | 1 |
| *Accept any typography related use – also accept limited typography if it is icon driven.* |  |
| **Total** | **14** |

(g) (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Suitable Application: Photoshop/Fireworks/Illustrator | 1 |
| Reason: Allows for a full colour layout with frames etc. | 1 |
| *Accept any software package that will show layouts.*  |  |
| **Total** | **2** |

(h) (4 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Criteria One: Learnability | 1 |
| How well users remember the navigation through the App | 1 |
|  |  |
| Criteria Two: Load Time | 1 |
| Testing how long screens take to load. | 1 |
| *Accept any reasonable criteria and explanation.* |  |
| **Total** | **4** |

(i) (3 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| One: iOS/iPhone OS | 1 |
| Two: Android OS | 1 |
| Three: Windows | 1 |
| *Accept MacOS, ChromeOS.* |  |
| **Total** | **3** |

(j) (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Issue One: Work-life balance | 1 |
| Issue Two: Distractions | 1 |
| *Accept issues relating to remote work – internet bandwidth etc.* |  |
| **Total** | **2** |
|  |  |

(k) (i) (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Intellectual Property is the property of the mind or proprietary knowledge… | 1 |
| …it may be an invention, trade mark, design, brand the application of an idea. | 1 |
|  |  |
| **Total** | **2** |

(k) (ii) (4 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Logo: The logo can be protected by registering it as a trademark… | 1 |
| …it enables the owner to have a recognisable brand | 1 |
|  |  |
| Connection Process: This can be protected by a Patent… | 1 |
| …this allows the process to be owned by the company and not used by others without permission. | 1 |
|  |  |
| **Total** | **4** |