## JADUAL PEMATUHAN SPESIFIKASI TEKNIKAL PERKAKASAN

|    | ARAHAN KEPADA PETENDER   |
|----|--|
| 1) | Petender hendaklah menanda $$ di ruangan 'Comply (Yes/No)' bagi setiap item.   |
| 2) | Petender hendaklah mengisi ruangan 'TENDERER'S PROPOSAL' dengan jelas, tepat dan terperinci bagi setiap spesifikasi dan keperluan minima yang disenaraikan di bawah. |
| 3) | Petender hendaklah melengkapkan Jadual Pematuhan Spesifikasi Teknikal Perkakasan bagi setiap perkakasan yang dicadangkan.  |
| 4) | Petender hendaklah mengambil kira perkara-perkara yang dinyatakan dalam skop kerja di dalam Seksyen B.   |

| NO. | ITEMS                   | REQUIREMENT SPECIFICATION   | MANDATORY | COMPLIANCE | TENDER'S PROPOSAL |
|-----|-------------------------|---|-----------|------------|-------------------|
|     |                         | PLATFORM -> ANDROID   |           |            |                   |
| 1.0 | Brand                   | Samsung Galaxy Note 8   |           |            |                   |
| 1.1 | Announced and launched  | 2017, August  |           |            |                   |
|     |                         | (Available, Released 2017 , September)                                    |           |            |                   |
| 1.2 | Network -<br>Technology | Technology:   |           |            |                   |
|     |                         | GSM / HSPA / LTE  |           |            |                   |
|     |                         | 2G bands:   |           |            |                   |
|     |                         | - GSM 850 / 900 / 1800 / 1900 -<br>SIM 1 & SIM 2 (dual-SIM model<br>only) |           |            |                   |
|     |                         |   |           |            |                   |

|     |      | 3G bands:   |
|-----|------|---|
|     |      |   |
|     |      | - HSDPA 850 / 900 / 1900 / 2100                           |
|     |      |   |
|     |      | 4G bands:   |
|     |      |   |
|     |      | - LTE   |
|     |      | Speed:  |
|     |      |   |
|     |      | - HSPA 42.2/5.76 Mbps, LTE-A (4CA)<br>Cat16 1024/150 Mbps |
|     |      | Cat10 1024y 130 Wisps                                     |
|     |      |   |
|     |      | GPRS: - Yes   |
|     |      | - res   |
|     |      | EDGE:   |
|     |      | - Yes   |
| 1.3 | Body | Dimensions:   |
|     |      | - 162.5 x 74.8 x 8.6 mm (6.40 x 2.94                      |
|     |      | x 0.34 in)  |
|     |      | NA/air-ha.  |
|     |      | Weight:   |
|     |      | - 195 g (6.88 oz)   |
|     |      |   |
|     |      | Build:  |
|     |      | - Corning Gorilla Glass 5 back panel                      |
|     |      |   |
|     |      | SIM:  |

|     |         | - Single SIM (Nano-SIM) or Hybrid Dual SIM (Nano-SIM, dual stand- by)   |
|-----|---------|---|
|     |         | - IP68 certified - dust/water proof over 1.5 meter and 30 minutes - Stylus - Samsung Pay (Visa, MasterCard certified) |
| 1.4 | Display | Type: - Super AMOLED capacitive touchscreen, 16M colors   |
|     |         | Size:   |
|     |         | - 6.3 inches (~83.2% screen-to-body ratio)  |
|     |         | Resolution:   |
|     |         | - 1440 x 2960 pixels (~521 ppi pixel density)   |
|     |         | Multitouch:   |
|     |         | - Yes   |
|     |         | Protection:   |
|     |         | - Corning Gorilla Glass 5   |
|     |         | - HDR10 compliant - 3D Touch (home button only)   |

|     |          | - Always-on display   |  |
|-----|----------|---|--|
| 1.5 | Platform | OS:   |  |
|     |          | - Android 7.1.1 (Nougat)  |  |
|     |          | Chipset:  |  |
|     |          | - Exynos 8895 Octa - EMEA<br>Qualcomm MSM8998 Snapdragon 835 -<br>USA & China   |  |
|     |          | CPU:  |  |
|     |          | <ul> <li>Octa-core (4x2.3 GHz &amp; 4x1.7 GHz) –</li> <li>EMEA</li> <li>Octa-core (4x2.35 GHz Kryo &amp; 4x1.9 GHz Kryo) - USA &amp; China</li> </ul> |  |
|     |          | GPU: - Mali-G71 MP20 - EMEA Adreno 540 - USA & China  |  |
| 1.6 | Memory   | Card slot - microSD, up to 256 GB<br>(dedicated slot) - single-SIM model<br>microSD, up to 256 GB (uses SIM 2 slot) -<br>dual-SIM model               |  |
|     |          | Internal - 64/128/256 GB, 6 GB RAM  |  |
| 1.7 | Camera   | Primary:  - Dual 12 MP (26mm, f/1.7, PDAF & 52mm, f/2.4, AF), OIS, autofocus, 2x optical zoom, dual-LED (dual tone) flash, check quality              |  |
|     |          | Features:   |  |

|     |       | - 1/2.55" sensor size, 1.4 μm pixel size<br>@ 26 mm   |
|-----|-------|---|
|     |       | - 1/3.6" sensor size, 1.0 μm pixel size @ 52 mm   |
|     |       | - Geo-tagging, simultaneous 4K video and 9MP image recording, touch focus, face/smile detection, Auto HDR, panorama |
|     |       | Video:  |
|     |       | - 2160p@30fps, 1080p@60fps, 720p@240fps, HDR, dual-video rec., check quality  |
|     |       | Secondary:  |
|     |       | - 8 MP, f/1.7, autofocus, 1/3.6" sensor size, 1.22 μm pixel size, 1440p@30fps, dual video call, Auto HDR            |
| 1.8 | Sound | Alert types:  |
|     |       | - Vibration; MP3, WAV ringtones   |
|     |       | Loudspeaker:  |
|     |       | - Yes   |
|     |       | 3.5mm jack:<br>- Yes  |

|      |          | - 32-bit/384kHz audio  |
|------|----------|--|
|      |          | - Active noise cancellation with dedicated   |
|      |          | mic  |
| 1.9  | Comms    | WLAN:  |
|      |          | - Wi-Fi 802.11 a/b/g/n/ac, dual-band, Wi-Fi Direct, hotspot  |
|      |          | Bluetooth:   |
|      |          | - 5.0, A2DP, EDR, LE<br>GPS:   |
|      |          | - Yes, with A-GPS, GLONASS, BDS,<br>GALILEO  |
|      |          | NFC:   |
|      |          | - Yes  |
|      |          |  |
|      |          | Radio:   |
|      |          | - No   |
|      |          | USB:   |
|      |          | - 3.1, Type-C 1.0 reversible connector   |
| 1.10 | Features | Sensors:   |
|      |          | - Iris scanner, fingerprint (rear-mounted), accelerometer, gyro, proximity, compass, barometer, heart rate, SpO2 |
|      |          | Messaging:   |

|      |         | - SMS(threaded view), MMS, Email, Push Mail, IM |
|------|---------|---|
|      |         | Browser:  |
|      |         | - HTML5   |
|      |         | Java:   |
|      |         | - No  |
|      |         | - Samsung Desktop Experience support            |
|      |         | - Fast battery charging (Quick Charge 2.0)      |
|      |         | - Qi/PMA wireless charging (market dependent)   |
|      |         | - ANT+ support                                  |
|      |         | - Bixby natural language commands and dictation |
|      |         | - MP4/DivX/XviD/WMV/H.265 player                |
|      |         | - MP3/WAV/WMA/eAAC+/FLAC player                 |
|      |         | - Photo/video editor                            |
|      |         | - Document editor                               |
| 1.11 | Battery | Non-removable Li-Ion 3300 mAh battery           |
|      |         | Talk time:                                      |

|      |      | - Up to 22 h (3G)                       |  |  |
|------|------|---|--|--|
|      |      | - Up to 22 h (3G)                       |  |  |
|      |      | Music plans                             |  |  |
|      |      | Music play:                             |  |  |
|      |      | 11. 1. 741                              |  |  |
| 1.10 |      | - Up to 74 h                            |  |  |
| 1.12 | Misc | Colors:                                 |  |  |
|      |      |   |  |  |
|      |      | - Midnight Black, Maple Gold, Orchid    |  |  |
|      |      | Grey, Deep Sea Blue, Star Pink          |  |  |
|      |      | (Taiwan only)                           |  |  |
|      |      |   |  |  |
|      |      | Price:                                  |  |  |
|      |      | - About 1000 EUR                        |  |  |
|      |      | (RM 4,985.64)                           |  |  |
| 1.13 | Test | Performance:                            |  |  |
|      |      |   |  |  |
|      |      | - Basemark OS II: 3374 / Basemark OS II |  |  |
|      |      | 2.0: 3333                               |  |  |
|      |      | Basemark X: 40890                       |  |  |
|      |      |   |  |  |
|      |      | Display:                                |  |  |
|      |      |   |  |  |
|      |      | - Contrast ratio: Infinite (nominal),   |  |  |
|      |      | 4.148(sunlight)                         |  |  |
|      |      | , ,                                     |  |  |
|      |      | Camera:                                 |  |  |
|      |      |   |  |  |
|      |      | - Photo / Video                         |  |  |
|      |      |   |  |  |
|      |      | Loudspeaker:                            |  |  |
|      |      | saspearer.                              |  |  |
|      |      | - Voice 67dB / Noise 69dB / Ring 71dB   |  |  |
|      |      | Voice or ab / Noise obab / Ming / Lub   |  |  |
|      |      | Audio quality:                          |  |  |
|      |      | Audio quality.                          |  |  |

|     | <u> </u>               |   |  |  |
|-----|------------------------|---|--|--|
|     |                        | - Noise -92.5dB / Crosstalk -93.2dB   |  |  |
|     |                        | Battery life:   |  |  |
|     |                        | - Endurance rating 89h  |  |  |
| 2.0 |                        | Platform -> IOS   |  |  |
| 2.1 | Brand                  | Iphone 8  |  |  |
| 2.2 | Announced and launched | Announced: - 2017, September  |  |  |
|     |                        | Status: - Available. Released 2017, September   |  |  |
| 2.3 | Network                | Technology: - GSM / CDMA / HSPA / EVDO / LTE  2G bands: - GSM 850 / 900 / 1800 / 1900 - CDMA 800 / 1900 / 2100 - A1863  |  |  |
|     |                        | 3G bands: - HSDPA 850 / 900 / 1700(AWS) / 1900 / 2100 - A1863, A1905 CDMA2000 1xEV-DO & TD- SCDMA - A1863   |  |  |
|     |                        | 4G bands:  - LTE band 1(2100), 2(1900), 3(1800), 4(1700/2100), 5(850), 7(2600), 8(900), 12(700), 13(700), 17(700), 18(800), 19(800), 20(800), 25(1900), 26(850), 28(700), 29(700), 30(2300), 34(2000), 38(2600), 39(1900), 40(2300), 41(2500), 66(1700/2100) - A1863, A1905 |  |  |

|     |      | LTE band 1(2100), 2(1900), 3(1800), 4(1700/2100), 5(850), 7(2600), 8(900), 11(1500), 12(700), 13(700), 17(700), 18(800), 19(800), 20(800), 21(1500), 25(1900), 26(850), 28(700), 22(3500), 29(700), 30(2300), 34(2000), 38(2600), 39(1900), 40(2300), 41(2500), 42(3500), 66(1700/2100) - A1906 Speed: - HSPA 42.2/5.76 Mbps, LTE-A (4CA) Cat16 1024/150 Mbps, EV-DO Rev.A 3.1 Mbps  GPRS: - Yes  EDGE: - Yes |
|-----|------|---|
| 2.4 | Body | Dimensions:  - 138.4 x 67.3 x 7.3 mm (5.45 x 2.65 x 0.29 in)  Weight: - 148 g (5.22 oz)  SIM: - Nano-SIM  - IP67 certified - dust and water resistant - Water resistant up to 1 meter and 30 minutes - Apple Pay (Visa, MasterCard, AMEX certified)   |

| 2.5 | Display  | Type:   |
|-----|----------|---|
|     |          | - LED-backlit IPS LCD, capacitive touchscreen, 16M colors                       |
|     |          | Size: - 4.7 inches (~65.4% screen-to-body ratio)                                |
|     |          | Resolution: - 750 x 1334 pixels (~326 ppi pixel density)                        |
|     |          | Multitouch: - Yes   |
|     |          | Protection: - Ion-strengthened glass, oleophobic coating                        |
|     |          | - Wide color gamut display - 3D Touch display & home button - True-tone display |
| 2.6 | Platform | OS:<br>- iOS 11   |
|     |          | Chipset: - Apple A11 Bionic   |
|     |          | CPU: - Hexa-core (2x Monsoon + 4x Mistral)                                      |

|     |        | GPU:  |  |
|-----|--------|---|--|
|     |        | - Apple GPU (three-core graphics)   |  |
| 2.7 | Memory | Card slot:<br>- No  |  |
|     |        | Internal:<br>- 64/256 GB, 2 GB RAM  |  |
| 2.8 | Camera | Primary: - 12 MP, f/1.8, 28mm, phase detection autofocus, OIS, quad-LED (dual tone) flash                                       |  |
|     |        | Features: - Geo-tagging, simultaneous 4K video and 8MP image recording, touch focus, face/smile detection, HDR (photo/panorama) |  |
|     |        | Video: - 2160p@24/30/60fps, 1080p@30/60/120/240fps  |  |
|     |        | Secondary: - 7 MP, f/2.2, 1080p@30fps, 720p@240fps, face detection, HDR, panorama   |  |
| 2.9 | Sound  | Alert types: - Vibration, proprietary ringtones   |  |
|     |        | Loudspeaker: - Yes, with stereo speakers  |  |
|     |        | 3.5mm jack:<br>- No   |  |

|      |          | - Active noise cancellation with dedicated   |
|------|----------|--|
|      |          | mic - Lightning to 3.5 mm headphone jack   |
|      |          | adapter  |
| 2.10 | Comms    | WLAN: - Wi-Fi 802.11 a/b/g/n/ac, dual-band, hotspot  |
|      |          | Bluetooth: - 5.0, A2DP, LE   |
|      |          |  |
|      |          | GPS: - Yes, with A-GPS, GLONASS, BDS, GALILEO  |
|      |          | NFC:<br>- Yes (Apple Pay only)   |
|      |          | Radio:<br>- No   |
|      |          | USB:<br>- 2.0, reversible connector  |
| 2.11 | Features | Sensors: - Fingerprint (front-mounted), accelerometer, gyro, proximity, compass, barometer |
|      |          | Messaging: - iMessage, SMS (threaded view), MMS, Email, Push Email                         |
|      |          | Browser:   |

|      |         | - HTML5 (Safari)                       |
|------|---------|--|
|      |         | TITIVILE (Salati)                      |
|      |         | Java:                                  |
|      |         | - No                                   |
|      |         | - NO                                   |
|      |         | Fortheller should F00/1: 20 of         |
|      |         | - Fast battery charging: 50% in 30 min |
|      |         | - Qi wireless charging                 |
|      |         | - Siri natural language commands and   |
|      |         | dictation                              |
|      |         | - iCloud cloud service                 |
|      |         | - MP3/WAV/AAX+/AIFF/Apple Lossless     |
|      |         | player                                 |
|      |         | - MP4/H.264 player                     |
|      |         | - Audio/video/photo editor             |
|      |         | - Document editor                      |
| 2.12 | Battery | Non-removable Li-lon 1821 mAh battery  |
|      |         | (6.96 Wh)                              |
|      |         |  |
|      |         | Talk time:                             |
|      |         | - Up to 14 h (3G)                      |
|      |         |  |
|      |         | Music play:                            |
|      |         | - Up to 40 h                           |
| 2.13 | Misc    | Colors:                                |
| 2.13 | 141130  | - Silver, Space Gray, Gold             |
|      |         | Silver, Space Gray, Gold               |
|      |         | SAR:                                   |
|      |         | - 1.32 W/kg (head) 1.36 W/kg (body)    |
|      |         | 1.32 W/ NS (IICUU) 1.30 W/ NS (DOUY)   |
|      |         | SAR EU:                                |
|      |         | - 1.19 W/kg (head) 1.17 W/kg (body)    |
|      |         | Price:                                 |
|      |         |  |
|      |         | - About 800 EUR (RM 3988.67)           |
|      |         |  |

| 3.0 |                        | Platform->IOS (tablet)   |  |  |
|-----|------------------------|--|--|--|
| 3.1 | Brand                  | Ipad Pro   |  |  |
| 3.2 | Announced and launched | Announced: - 2017, June  Status: - Available. Released 2017, June  |  |  |
| 3.3 | Body                   | Dimensions: - 305.7 x 220.6 x 6.9 mm (12.04 x 8.69 x 0.27 in)  Weight: - 677 g (Wi-Fi) / 692 g (LTE) (1.49 lb)  SIM: - Nano-SIM/ Electronic SIM card (Apple e-SIM)  - Stylus                       |  |  |
| 3.4 | Display                | Type:  - LED-backlit IPS LCD, capacitive touchscreen, 16M colors  Size:  - 12.9 inches (~76.4% screen-to-body ratio)  Resolution: - 2732 x 2048 pixels (~265 ppi pixel density)  Multitouch: - Yes |  |  |

|     |          | Ported to   |  |
|-----|----------|---|--|
|     |          | Protection:   |  |
| 1   |          | - Scratch-resistant glass, oleophobic                             |  |
|     |          | coating   |  |
|     |          |   |  |
|     |          | - True-tone display   |  |
| 3.5 | Platform | OS:   |  |
|     |          | - iOS 10.3.2, upgradable to iOS 11                                |  |
|     |          |   |  |
|     |          | Chipset:  |  |
|     |          | - Apple A10X Fusion   |  |
| 3.6 | Memory   | Card slot:  |  |
|     | ,        | - No  |  |
|     |          |   |  |
|     |          | Internal:   |  |
|     |          | - 64/256/512 GB, 4GB RAM  |  |
| 3.7 | Camera   | Primary:  |  |
| 3.7 | Camera   | - 12 MP, f/1.8, phase detection                                   |  |
|     |          | autofocus, OIS, quad-LED (dual tone)                              |  |
|     |          | flash   |  |
|     |          | liasii  |  |
|     |          | Features:   |  |
|     |          |   |  |
|     |          | - 1/3" sensor size, geo-tagging,<br>simultaneous 4K video and 8MP |  |
|     |          |   |  |
|     |          | image recording, touch focus,                                     |  |
|     |          | face/smile detection, HDR   |  |
|     |          | (photo/panorama)  |  |
|     |          |   |  |
|     |          |   |  |
|     |          |   |  |
|     |          |   |  |
|     |          | Video:  |  |
|     |          | - 2160p@30fps, 1080p@30/60fps,                                    |  |
|     |          | 1080p@120fps, 720p@240fps   |  |
|     |          |   |  |

|     |       | Secondary: - 7 MP, f/2.2, 32mm, 1080p@30fps, 720p@240fps, face detection, HDR, panorama |  |  |
|-----|-------|---|--|--|
| 3.8 | Sound | Alert types: - Vibration; Ringtones   |  |  |
|     |       | Loudspeaker: - Yes, with stereo speakers (4 speakers)                                   |  |  |
|     |       | 3.5mm jack:<br>- Yes  |  |  |
|     |       | - Active noise cancellation with dedicated mic  |  |  |
| 3.9 | Comms | WLAN: - Wi-Fi 802.11 a/b/g/n/ac, dual-band, hotspot                                     |  |  |
|     |       | Bluetooth:<br>- 4.2, A2DP, EDR  |  |  |
|     |       | GPS: - Yes, with A-GPS, GLONASS (Wi-Fi + Cellular model only)                           |  |  |
|     |       | NFC:<br>- NFC<br>Radio:   |  |  |
|     |       | - No  |  |  |
|     |       | USB:  |  |  |

|      |          | - 3.0, reversible connector; magnetic  |  |  |
|------|----------|--|--|--|
|      |          | connector  |  |  |
| 3.10 | Features | Sensors: - Fingerprint (front-mounted), accelerometer, gyro, compass, barometer            |  |  |
|      |          | Messaging: - iMessage, Email, Push Email, IM   |  |  |
|      |          | Browser: - HTML5 (Safari)  |  |  |
|      |          | Java:<br>- No  |  |  |
|      |          | - Siri natural language commands and dictation   |  |  |
|      |          | <ul><li>iCloud cloud service</li><li>MP3/WAV/AAX+/AIFF/Apple Lossless<br/>player</li></ul> |  |  |
|      |          | - MP4/H.264 player<br>- Audio/video/photo editor<br>- Document editor                      |  |  |
| 3.11 | Battery  | Non-removable Li-Ion battery (41 Wh)  Talk time:   |  |  |
|      |          | - Up to 10 h (multimedia)  |  |  |
| 3.12 | Misc     | Colors: - Space Gray, Gold, Silver   |  |  |
|      |          | Price: - About 900 EUR (RM 4487.25)  |  |  |

## Calculations for all three devices:

| No.   | Brand                 | Price per unit | Qty | Price         |  |  |
|-------|-----------------------|----------------|-----|---------------|--|--|
| 1.    | Samsung Galaxy Note 8 | RM 4985.64     | 40  | RM 199,425.60 |  |  |
| 2.    | Iphone 8              | RM 3988.67     | 40  | RM 159,546.80 |  |  |
| 3.    | Ipad Pro              | RM 4487.25     | 40  | RM 179,490.00 |  |  |
| TOTAL | TOTAL RM 538,462.40   |                |     |               |  |  |

Samsung Galaxy Note 8 – RM 4985.64 x 40 units

= RM 199,425.60

Iphone 8 – RM 3988.67 x 40 units

= RM 159,546.80

Ipad Pro – RM 4487.25 x 40 units

= RM 179,490.00