**3.      Select correct description for E Call:**

a.      Automatically call which made upon collision detection or via user required emergency button

b.      A call allows user to request stock information, order move/football ticket

c.       A call trigger by Telematics device to Call center when the car is stolen

d.      A function to record a voice call to Call center case of emergency

**4.      ABS (Anti- Lock Braking System) in an automobile safety system that allows the wheels on a motor vehicle to:**

a.      Continue moving on the wet road

b.      Stop the car immediately

c.       Preventing the wheels from looking up during braking

d.      Preventing the driving wheels from locking up during braking

**5.      Which correct description about E-call?**

a.      A call allows user to request stock information, order movie/football ticket

b.      A network service that provides traffic report and weather forest for driver

c.       A function to record a voice call to Call Center in case of emergency

d.      The automated emergency call can help save lives in the event of a traffic accident

**6.      Select correct statement about RR (Remote Reflash)**

a.      Remote Reflash feature will need to operate while the engine is run

b.      Remote Reflash will utilize a long range connection from the Telematics device to a  Remote IT system

c.       Driver can start Remote Reflash by turn on the key to Crank position

d.      Remote Reflash can be trigger by pressing Phone Button

**7.      How is Speedometer defined?**

a.      is a gauge that measures and display the instantaneous speed of a vehicle

b.      is a gauge that measures and display the fuel

c.       is an instrument for measuring the speed of an engines rotation

d.      is a gauge that indicates the temperature of the engines coolant

**8.      CANOE is a**

a.      Internal network protocol in car to communicate between ECUs

b.      Development and testing hardware tool primarily used by automotive manufacture…control unit (ECU) suppliers for development, analysis, simulation, testing, diagnostic…ECU networks and individual ECUs

c.       Vehicle network interface

d.      Development and testing software tool primarily used by automotive manufacture…control unit (ECU) suppliers for development, analysis, simulation, testing, diag…ECU networks and individual ECUs

**9.      What is Voice Recognition?**

a.      The ability of a machine or program to support text code transition

b.      A program which takes audio content and transcribes it intro written other display destination

c.       A system to convey a caller’s recorded audio message to a recipient  (voice mail)

d.      The ability of a machine or program to receive and interpret dictation, or to understand and carry out spoken commands.

**10.  Air Recirculation is a feature:**

a.      Change the direction of the airflow inside car

b.      Switches between drawing air in from outside and recirculation the air in the car

c.       Recirculation air inside the vehicle to limit the amount of pollution

d.      Change the direction of the airflow outside the car

**11.  Which of the following is a true of gear position?**

a.      B, N, R, D

b.      B, N, R, S

c.       P, N, R, S

d.      P, N, R, D

**12.  Radio frequency(RF) is any of the electromagnetic wave frequencies that lie in the range.**

a.      3khz- 300ghz

b.      5khz- 300ghz

c.       3mhz- 300ghz

d.      5mhz- 300ghz

**13.  PSAP is Public-Safety Answering Point is:**

a.      is a call center responsible for answering calls to an emergency telephone number for police, firefighting, and ambulance services

b.      The call center to help people to solve problem, sometimes called "Public-Safety Automatic Point",

c.       emergency call is triggered, Telematics box will send MSD to server via telecommunication channel

d.      is for the scenario that user sends the request in the remote control client (such as application on mobile phone, call center website) to vehicle, so that the vehicle can perform the operation required

**14.  What is correct description for VIF( vehicle interface)**

a.      is basically an air-bag system

b.      is the component to connect the ECU to vehicle's bus like CAN or ethernet which supports to translates proprietary network messages to the standard message format which can use by ECU.

b.      is an electronic control unit that incorporates a phone module for the connection to communication networks

c.       is any transparent display that presents data without requiring users to look away from their usual viewpoints

**15.  What is the correct information for Adaptive Cruise Control**

a.      is an available cruise control system for road vehicles that automatically adjusts the vehicle speed to maintain a safe distance from vehicles ahead.

b.      This is also known as Dynamic Car Control

c.       is a risk classification scheme defined by the ISO 26262

d.      is an Instrument for measuring the distance traveled (as by a vehicle)

**16.  Which function user CANNOT select from SWC**

a.      Pickup/Hang up phone call

b.      Volume up / Volume Down

c.       Rotary for next / previous channel

d.      Adjust temperature

**17.  Which of the following is a true general power mode when move ignition key position**

a.     ON, OFF, ACC, START

b.     ON, ACC, OFF, START

c.     OFF, ON, ACC, START

d.     OFF, ACC, ON/RUN, START

**3.      LWC is abbreviation of**

A.      Local wheel control

B.      Left Wheel Control

C.      Left Watch camera

D.     Lane Watch camera

**4.      Which of the following is the correct description of Average fuel consumption**

A.      Indicates the average speed since the function was last reset

B.      Indicates the average fuel consumption since the function was last reset

C.      Speed is expressed by the traveled distance in a unit of time as number of kilometers per hour (km/h) or number of miles per hour (mph)

D.     Indicates the average battery since the function was last reset

**5.      Which is correct for Wireless Carplay?**

A.      Apple personal voice assistance, available on iOS devices

B.      Wireless carplay can connect via bluetooth and Wifi connection with in-car system

C.      Wireless CarPlay alleviates the need for a Lightning cable, allowing an iPhone to connect to an in-car system wirelessly

D.     Both B and C

**6.      What is correct sentence for HUD**

A.      is a type of phone call when call is active and user receive 2nd incoming call, he hold the 1st call and activate the 2nd incoming call

B.      is a component of certain devices that are capable of handling human-machine interactions.

C.      is a computer-operated system that represents significant information or visual images to a user’s focal view Displays the data on a transparent windscreen

D.     is a collection of hardware and software in automobiles that provides audio or video entertainment

**7.      What is the process of removing heat and moisture from the interior of an occupied space?**

A.      Air Conditioning

B.      Active Component

C.      Access Control

D.     Alternating Current

**8.      Air distribution (or Air Delivery Mode, Blower Mode): change the direction of the airflow have 4 mode, Chose the incorrect mode:**

A.      Panel (AC) button: Air is directed to the instrument panel outlets

B.      Floor-Windshield (Heater - Defrost) button: Indicate which vents air is flowing from inside the vehicle, air directed to the windshield & floor outlets

C.      Floor (Heater) button: Air is directed to the floor

D.     Bi level button: Air is directed to the instrument panel

**9.      Which is the incorrect information for Climate feature**

A.      The car's climate control system controls the heating and air-conditioning systems

B.      The climate control unit adjusts the temperature and air flow inside the car.

C.      The climate control module can select hot/cold, defrost/vent, or fresh air/recirculated air.

D.      The climate control can be remote by Steering Wheel Control

**10.  What is the correct answer for Hand free?**

A.      An warning light and button use to trigger others in case your car in emergency

B.      A call mode. User listens via speaker of HU/AVN/Bench and speaks via mic of HU/AVN/Bench without using phone in hand.

C.      is a type of phone call when call is active and user receive 2nd incoming call, he hold the 1st call and activate the 2nd incoming call

D.     A voice connection is immediately established with the local customer service for up-to-date information on products or support

**11.  What is Night vision mean?**

A.      an Instrument for measuring the distance traveled (as by a vehicle)

B.      is a set of communication protocols that enable two electronic devices

C.      uses a thermo graphic camera to increase a driver's perception and seeing distance in darkness or poor weather beyond the reach of the vehicle's headlights

D.     Enable the resolution of software-related defects in vehicle ECUs or the VCP without requiring service test equipment to be physically connected to the vehicle.

**12.  How is tachometer defined?**

A.      is an instrument for measuring the speed of an engine’s rotation

B.      displays the instantaneous speedometer or a speed meter is a speed of a vehicle gauge that measures

C.      A steering wheel (also called a driving wheel or a hand wheel) is a type of steering control in vehicles and vessels (ships and boats).

D.     a computer fitted to some cars; most modern trip computers record, calculate, and display the distance travelled, the average speed, the average fuel consumption, and real-time fuel consumption.

**13.  Statement: “Record, calculate, and display the distance travelled, the average speed, the average fuel consumption, and real-time fuel consumption” is describe function of**

A.      Hazard

B.      Trip computer

C.      Odometer

D.     Tachometer

**14.  What is hazard?**

A.      A frame is a digital data transmission unit in computer networking and telecommunication.

B.      A warning light and button use to trigger others in case your car in emergency

C.      A component of certain devices that are capable of handling human-machine interactions.

D.     An instrument for measuring the speed of an engine’s rotation

**15.  TCU consist of**

A.      A global positioning system (GPS) unit

B.      A mobile communication unit

C.      An electronic processing unit; - a microcontroller, in some versions; a microprocessor

D.     or field programmable gate array (FPGA), which processes the information and acts on the interface between the GPS

E.      All of above

**16.  Statement “Graphical Icons and/or Text displayed in the Cluster that indicate the state of a vehicle system or subsystem to the user” is definition of**

A.      Cluster

B.      Warning lights

C.      Telltale indicators

D.     Night Vision

**17.  What is Ambient Lighting App?**

A. is an interior lighting system that allows the driver to select the different accent colors in order to set the mood in the cockpit

B. is an interior lighting system that allows the driver can’t select the different accent colors in order to set the mood in the cockpit

C. Enable the resolution of software-related defects in vehicle ECUs or the VCP without requiring service test equipment to be physically connected to the vehicle.

D. Displays engine coolant temperature and warning

**3. What is “ Speed dial”?**

A.      Is a device for the input of numbers in telephones and similar devices

B.      Is a quickly way to make phone call to a frequent calling number without typing all input number

C.      The dial or touch the screen frequency. You can change the frequency by dragging while touching.

D.     It is an important dial that is located on the dashboard of your vehicle Temperature gauge

**4.      PDU (Protocol data unit) of the OSI model. What is the incorrect answer?**

A.      Layer 4 (Application layer) PDU is the segment or the datagram

B.      Layer 3 (Network layer) PDU is the packet

C.      Layer 2 (Data Link Layer) PDU is the frame

D.     Layer 1 (Physical layer) PDU is the bit or symbol

**5.      What is the correct define for AAVR?**

A.      It helps drivers can fully control their car’s infotainment system with their voice.

B.      This app supports Google maps/navigation, music/media player, phone call, SMS, google assistant (by voice).

C.      Allows the user to listen to music from the music source on the phone that is connected to the user's H / U BT.

D.     a telephony service that provides call forwarding and voicemail services, voice and text messaging, as well as U.S. and international call termination for Google Account customers

**6.      What is DAB mean**

A.      is the encoding of information in a carrier wave by varying the instantaneous frequency of the wave. This contrasts with amplitude modulation, in which the amplitude of the carrier wave varies, while the frequency remains constant.

B.      is the signal to the phone company that you generate when you press an ordinary telephone's touch keys

C.      a digital radio standard for broadcasting digital audio radio services, used in countries across Europe, the Middle East and Asia Pacific.

D.     is the signal to the phone company that you generate when you press an ordinary telephone's touch keys

**7.      Which is the incorrect information about GPS**

A.      It is standard for Global Positioning System

B.      Is a global navigation satellite system that provides geolocation and time information to a GPS receiver anywhere on or near the Earth

C.      It will display your current location base on GPS data, and local time should be changed too

D.     It is standard for Global Positioning Service

**8.      What is the correct sentence for ASIL(Automotive Safety Integrity Level)**

A.      An warning light and button use to trigger others in case your car in emegency

B.      There are four ASILs identified by the standard: ASIL A, ASIL B, ASIL C, ASIL D. ASIL D dictates the lowest integrity requirements on the product and ASIL A the highest

C.      ASIL is a risk classification scheme defined by the ISO 26262 - Functional Safety for Road Vehicles standard

D.     Graphical Icons and/or Text displayed in the Cluster that indicates the state of a vehicle system or subsystem to the user

**9.      What is the Fuel Gauge ?**

A.      This gauge will tell you if your engine’s coolant is cold, normal, or overheating.

B.      The fuel gauge shows approximately how much fuel is remaining in the tank.

C.      When the ignition is switched OFF, the fuel gauge shows approximately how much fuel is remaining in the tank

D.     The temperature gauge in your vehicle is designed to indicate the temperature of your engine’s coolant.

**10.  What is AIF (Air Interface)?**

A.      is the Wireless Communications Protocol between the the telematics Center system and the telematics

B.      A mobile network operator (MNO) is a telecommunications service provider organization that provides wireless voice and data communication for its subscribed mobile users

C.      A standard for high-speed wireless communication for mobile devices and data terminals, based on the GSM/EDGE and UMTS/HSPA technologies

D.     The mobile network code consists of two or three decimal digits

**11.  Which is correct information for Hazard**

A.      An warning light and button use to car owner in case your car in emegency.

B.      Hazard warning lights are a pair of intermittent flashing indicator lights that flash in unison to warn other drivers that the vehicle is a temporary obstruction. They are also called hazard flashers and hazard lights.

C.      Press this button to make the front and rear turn signal lamps flash on and off and cannot turn the flashers off.

D.     Both B & C

**12.  Which is the correct information about Turn by turn**

A.      It uses an electronic voice to inform the user whether to turn left or right, the street name, and how much distance to the turn

B.      It will display your current location base on GPS data, and local time should be changed too GPS device

C.      It is a process to suggest a route from a start position to a destination.(Routing)

D.     Is a small chip used as an embedded system in automotive projects

**13.  What is the incorrect sentence for Block Explicit?**

A.      It is a setting to block/allow explicit content to display or play

B.      Set OFF means the explicit content will be blocked

C.      The explicit content is applied when the lyrics or content of a song or a music video, streaming contain one or more of the following criteria which could be considered offensive or unsuitable for children

D.     On Radio, set in audio setting of SXM source

**14.  What is the correct sentence for VIN (Vehicle Identification Number)?**

A.      Is use to indicate an ongoing  traffic announcement

B.      A VIN is composed of 17 digits characters

C.      Is a unique identification associated with all mobile network

D.     display the car’s unique features, specifications and manufacturer

**15.  What is stand for SVT (Stolen Vehicle Tracking)?**

A.      An anti-theft system is any device or method used to prevent or detect the unauthorized appropriation of items considered valuable

B.      The remote honk/flash is used by the user to send the request in the mobile application or call center to the vehicle, so that the vehicle can be easily located

C.      Vehicle tracking systems use the GPS/GNSS and telecommunication technology, providing vehicle location accuracy. This feature to support driver to find the vehicle when it was stolen

D.     A group of many vehicle sensors detect unauthorization attemp then send signal for further processing.

E.      For example: a sensor on door can detect the window is broken and send signal to indicated ECU such as telematics, then it will send notification to user mobiphone to warning

**16.  X is is simply an eight-character static display that represents station identity name. What is X?**

A.      PI (Programme Identification)

B.      PS (Program Service)

C.      Frequency

D.     PTY (Program type)

**17.  What is MSC**

A.      Mass Storage Class

B.      Media Set Control

C.      Mobile Storage Class

D.     Mobile Service Control

**3.     What is the  WARNING LIGHT**

A.   Array of dashboard warning lights to let driver know an issue with the car.

B.   Message inform to drivers about possible issue if the car have something wrong

C.   In GM telematics, ecall is the name for emergency call in EU market only.

D.   Fuction to store a number of latest emergency call log in internal memory of telematic device. These data can be get by server to analysis purpose.

**4.      Choose the incorrect answer about AAC (Advanced Audio Coding)?**

A.      AAC is an audio coding standard for lossy digital audio compression

B.      Designed to be the successor of the MP3 format, AAC generally achieves better sound quality than MP3 at the same bit rate.

C.      AAC is the default or standard audio format for YouTube, iPhone, iPod, iPad, Nintendo DSI, Nintendo 3DS, iTunes, DivX Plus Web Player, PlayStation 3 and various Nokia Series 40 phones.

D.      AAC is also supported by manufacturers of in- dash car audio systems

**5.      Which below action is “Go to the previous track”**

A.   Seek down

B.   Seek up

C.   Skip backward

D.   Skip forward

**6.      What is the Temperature gauge?**

A.   Use to indicate the temperature of an item being monitored. The temperature gauge in your vehicle is designed to indicate the temperature of your engine’s coolant. This gauge will tell you if your engine’s coolant is cold, normal, or overheating. It is an important dial that is located on the dashboard of your vehicle.

B.   indicator of malfunction of a system within a motor vehicle by an illuminated symbol or text legend

C.   Array of dashboard warning lights to let driver know an issue with the car.

D.   An automatic crash notification system is an emerging safety technology designed to notify emergency responders that a crash has occurred and provide crash data.

**7.      Choose the correct answer**

A.      MPEG-4 Part 14 or MP4 is a digital multimedia container format most commonly used to store audio, but it can also be used to store other data such as subtitles and still images.

B.      MPEG-4 Part 4 or MP4 is a digital multimedia container format most commonly used to store video and audio, but it can also be used to store other data such as subtitles and still images.

C.      MPEG-4 Part 14 or MP4 is a digital multimedia container format most commonly used to store video and audio, but it can also be used to store other data such as subtitles and still images.

D.     MPEG-4 Part 4 or MP4 is a digital multimedia container format most commonly used to store video, but it can also be used to store other data such as subtitles and still images.

**8.      What is the correct abbreviation for SRS?**

A.   Sound Restraint System

B.   Supplemental Restraint System

C.   Slide Rear System

D.   Sound Rear System

**9.      What is the incorrect sentence for SMS?**

A.      is a text messaging service component of most telephone, internet, and mobile-device systems

B.      The protocols allowed users to send and receive messages of up to 160 alpha-numeric characters to and from GSM mobiles

C.      The SMSC transfers the message in a Short Message Delivery Point-to-Point format to the serving system

D.     is a messaging protocol specification for exchanging structured information in the implementation of web services in computer networks

**10.  What is the correct Emergency Call Sequence Logging (ECSL)?**

A.      Fuction to store a number of latest emergency call log in internal memory of telematic device

B.      ECLS is a call which is made by telematics device to emergency call center.

C.      These data can be get by client to analysis purpose

D.     These data can be get by client and server to analysis purpose

**11.  During these modes, the control unit shall consume as little power as possible. All components shall be powered down, except the one (ex: RTC, Ethernet, airbag interface…) Which is correct or not?**

A.      Telematics OFF

B.      Telematics standby

C.      telematics normal mode

D.     shutdown mode

**12.  Which is incorrect about External MIC (External microphone)?**

A.      is a microphone is installed in car supports only for telematics call

B.      is used for Ecall

C.      support for Bluetooth, Media ( HFP, A2DP, AVRCP,… )

D.     is not main microphone

**13.  Choose the correct NAD (Network Access Device)**

A.      Is represented for data. It is used for locating a memory block.

B.      a component in telematics device to connect to cellular network

C.      Method to distribute updated firmware by wireless telecommunications

D.     is a method of distributing new software, configuration settings, and even updating encryption keys to devices like cellphones, set-top boxes or secure voice communication equipment

**14.  AACN ( Advanced Automatic Collision Notification ) is :**

A.      A network service that provies traffic report and weather forcst for driver.

B.      An emerging safety technology desinged to notify emergency responders that a crash has occurred and provide its location.

C.      An electronic control unit that controls aseris ofactuators on an internal combustion engine to ensure optimal engine performance

D.     A system to optimize distribution of light from the headlinghts according ro driving

**15.  ABS (Anti- Lock Braking System) in an automobile safety system that allows the wheels on a motor vehicle to:**

A.      Continue moving on the wet road

B.      Stop the car immediately

C.      Preventing the wheels from looking up during braking

D.     Preventing the driving wheels from locking up during braking

**16.  Select best description for Emergency call?**

A.      Emergency Call is a call which is made by telematics device to emergency call center.

B.      Ecall is the name for emergency call in Chinese market only.

C.      In GM telematics, ecall is the name for emergency call in EU market only.

D.     Both A and C

**17.  RSI ( Rear Seat Infotainment) is?**

A.     A system lets your passengers play media from a wide range of sources.

B.     A system control the rear climate.

C.    A system to control the rear seat.

D.    A system to see behind the driver rear view.