Toyota Tsusho Electronics

No. 1 Basic Knowledge of Software (scored 20)

No.1.1

Which of the following answer is a conversion of decimal number 100 to be as *an 8 bit binary number Complement format (Scored 1)*

*a) 11111100 b) 10011011 c) 11111011 d) 10011100*

*No1.2*

*Suppose that there are 3 methods to represent a negative integer as following methods x-z if we brings 4-bits binary number (4 bit pattern) '1101' to represent on thee methods x-z is ascending order (lowest to highest) which answer is correct? (score 1)*

*x : Two's complement*

*y: One's complement*

*z: Signed magnitude representation (A positive number if the first bit is as 0 , a negative number if the first bit is as 1)*

*a) x, y, x*

*b) x, z ,y*

*c) y, z,x*

*d) z, x, y*

*Which of the following answers is a description of a computer system (Computer System) and High reliability technology?*

*(scored 1)*

*a) Fail-safe is a technology to enhance the reliability of the components and reduces trustretion*

*b) Fail soft is a technology for system fault management caused by software.*

*c) Fault avoidance is a technology that allows the system to continue operating even through the failure has occurred on the components*

*d) Fault tolerance is a technology that allows the system to continue operating even through here is a significant internal damage on the componens.*

*No 1.4*

*Which is used to control the operation of shared memory (Shared Memory) on the main memory (Main Memory) for multi-MFUSystem with using main memory together ? (scored 1)*

*a) TAB (TEST & SET) Instruction*

*b) Event Flag*

*c) Semaphore*

*d) Interrupt disable*

*No1.5*

*Which phenomenon is likely to occur repeatedly after receiving process (get\_mp1) and returning process (rel\_mp1) of block by sussing variable-size memory pool? (Scored 1)*

*a) Deadlock*

*b) Fragementation*

*c) Buffer overmun*

*d) memory Leak*

*No 1.6*

*which type of memory that can be read / write by electricty and can store date that has been saved when there is no electric supply ? (scarred 1)*

*a) Mask Rom*

*b) Flash Memory*

*c) SRAM*

*d) DRAM*

*No.1.7*

*What is an explanation for A/D Conversion?*

*a) High frequency noise on the input signal can be done for accurate conversion by using a hight-pass filter.*

*b) Change original value to be analog signal*

*c) it sampling rate is higher precision of the conversion value for change of input voltage is much higher.*

*d) According to circuit of A / O conversion the conversion of the input voltage divided by the resistance are general practice*

*No 1.8*

*What is an explanation for OSP?*

*a) Processor that is suitable for a product-sum operation in Multimedia processes*

*b) Structures sued to mange memory*

*c) Processor that is suitable for Fast graphics process*

*d) Logic device that is able to write date to the Circuit struture of development (Development)*