Java Exception Questions

1) WAP to take student marks of different subject in class StudentResult which is associated with Student class in following way:-

   Class Student

   {

   Int rollno;

   String sname;

   String saddress;

   StudentResult srobj;

   Setter and getter for all class variable.

   }

   Create your own Exception class with name ResultException. This exception will be thrown when user is failed in more than 1 subject.

   You also need to throw exception when user mistakenly input the negative marks.

   If user total score is less than 40% you need to through fail exception.

2) WAP to take Employee daily attendance in an array of int with name presentdays. You also take salary per month of the Employee. You need to calculate the total day an employee is present. Employee will input in following format P for present, L for leave it will be paid leave, A for absent, N for no information about this day.

   An employee can not take more than 2 leaves in a month if he takes more than two leave you need to throw the exception. LeaveExceedLimitException.

   If for any employee N is continuously for four days you need to throw exception EmployeeAbscondingException. In this case salary will not be calculated.

   If all goes good you need to print the total salary of employee for that particular month.

3) WAP to demonstrate use of try with resources.

4) You are having a class with name Item which store the item name, price, and maximum no of item can bought, Class Category it has catid, and categoryname. Class ItemBought it will have itemid, itemqty. User will input the item list which will be store by the item class object array, user also input how many item he has purchased and what is the quantity. On the basis of these input you need to print the all item in the bill and if user input the quantity of item which is more than

maximum number of item can be bought limit you have to throw the exception ItemPurchaseLimitExceed. It may be possible user input the price or maximum limit 0 in that case also throw the exception. If all good print the total amount and all items list on console.

5) A user try to book the ticket in the railway system. A user can only book 6 ticket at a time in case of normal booking and 4 ticket at the time of tatkal booking. Tatkal booking is only allowed to be done in between 10 to 12. When he choose to book ticket in tatkal he is only allowed to book 4 tickets.

   You are suppose to perform following task during 10 to 12 only tatkal tickets can be booked it means only four ticket can be booked for tatkal if user try to book the more than 4 ticket in tatkal you have to throw the exception booking limit exceed. During 11:00 PM to 1:00 AM user is not allowed to book any ticket if he try to book the ticket during this duration BookingNotAllowedException should be thrown. User can book normal ticket whole day except the time duration 11:00 PM to 1:00 AM. If user try to book more than 6 tickets. NormalTicketBookingException should be thrown.

   Ticket for age limit 0 year to 5 is not allowed if user try to book the ticket for the same age group Exception should be thrown.

6) A Customer is going to buy an Assembled System. System can be assembled with the following criteria. I3,I5, and I7 should have minimum of 4 GB RAM and 250 GB SDD. With dual core, quad core and core to dual processor minimum of 1 GB RAM and 160 GB HDD are sufficient below to that is not allowed. Now your task is to help the customer to buy the system on the basis of his requirements.

   If customer buy the I3, I5 and I7 system with lower RAM than the recommended RAM LowerRAMSizeException should be thrown. If he try to buy HDD with I series processor MisMatchHardDiskException should be thrown.

   If customer buy lower RAM in dual core, core to dual and quad core processor LowerRAMException should be thrown. If customer want to put SSD with dual core , quad core or core to dual processor, HardDiskNotSupportedException Should be thrown. HDD is also not supported with I series processor, HardDiskNotSupportedException should be thrown and handled.

7) WAP to demonstrate exception chaining.

8) User will input the password and with the help of your algorithm. You are suppose to test that password is strong or not. A password is said to be strong if it is of length in the range of 8 to 14 and having at least 2 capital letters, 2 small letters, 2 digits and 2 special characters. This is minimum requirements for password of length 8 for password of length greater than 8 this should be present and other character can be used. If user not entered the password in given format PasswordFormatException should be thrown and handled properly.

9) A collar maker makes the collar for different size of shirts. The collar he made is having standard deviation of 2% from actual size means that if he made collar of size 30, it may be increased to 30.6 which is acceptable. Your task is to take the input for collar size and check how many collar are satisfy the standard deviation rate which is 2% and how many are not. If more than 5 collar out of 10 is not satisfying the condition then you have to thrown CollarStandardDeviateException. You have to take size of each collar and calculate how much size is deviated from actual size.

10) You are giving two classes one is parent class and second is child class parent class having the method calculate maximum from the list of given array. The method is overridden in the child class. In child class the method is use to print the average of number along with maximum number. In parent class method throws the NullPointerException and ArrayIndexOfBoundsException. In child class it throws the NumberFormateException and NullPointerException. You have to make sure that exception handling by overriding should be take place in proper way.