

NET311 – Homework1

1. Write an ASN. 1 module that specifies DaysOfWeek as SEQUENCE type with each day of the week (day1, day2, ...) as the type VisibleString. Write the ASN. 1 description:

- for the structure (Type definition)
- for the value (Value assignments, using values of Sunday, Monday, ..., Saturday)

2. Given the definition

```
class ::= SET {  
  name VisibleString,  
  size INTEGER,  
  graduate BOOLEAN  
}
```

Which of the following set of values is (are) compatible with the above ASN. 1 record structure? You can select more than one.

- "CS4803B," FALSE, 28
- CS8113B, TRUE, 28
- "CS4803B," 28, TRUE
- CS4803B, 28, TRUE

3. Answer the previous problem if you have SEQUENCE instead of SET.

4. You have the following ASN.1 module definition:

```
Student ::= SEQUENCE {  
  name UTF8String,  
  id INTEGER,  
  birthDate Date  
}
```

```
Date ::= SEQUENCE {  
  day INTEGER,  
  month INTEGER,  
  year INTEGER  
}
```

Encode the following record using BER rules. Note that numbers are always encoded in hexadecimal.

{ "Ahmed", 465987123, {2, 10, 1985} }

You can use the following information:

Type Codes

Type	Hex Code
INTEGER	02
UTF8String	0C
SEQUENCE	30

Letter Codes

Letter	Hex Code	Letter	Hex Code	Letter	Hex Code	Letter	Hex Code
A	41	N	4E	a	61	n	6E
B	42	O	4F	b	62	o	6F
C	43	P	50	c	63	p	70
D	44	Q	51	d	64	q	71
E	45	R	52	e	65	r	72
F	46	S	53	f	66	s	73
G	47	T	54	g	67	t	74
H	48	U	55	h	68	u	75
I	49	V	56	i	69	v	76
J	4A	W	57	j	6A	w	77
K	4B	X	58	k	6B	x	78
L	4C	Y	59	l	6C	y	79
M	4D	Z	5A	m	6D	z	7A