Q1]

a) jshell> int a = 'A' ; a+4

→ output : 69

int a = 'A'

a ==> 65   (ASCII value A = 65)

a+4

65+4

69

b) Assume a = 5

jshell > -a-++ a + -- a

→ output : -6

-a - ++a + --a

- (5) - 6 + 5

-5 - 6 + 5

-6

c) jshell > String b = "A \t b   c \s d"

jshell > b.replace (" ", "");

→ output : "A\tbcd"

String b = "A\tb   c\s d"

b ==> "A\tb c d"

(A + tab + b + space + c + space + d)

b.replace (" ", "")
"A\tbcd"   → space will remove from b

d) jshell > Byte·SIZE + short.SIZE /short·Bytes
output → Error
java is a case → sensitive
short·Bytes → compile-time error
short·BYTES·

Q.2]

a) class Pattern {
   static void printPattern (int n).
    String ch = "X";
    String sp = " ";

if (n%2 == 0){
  System.out·println ("The entered value" +
    n +" is not odd. please enter an
    odd size");

return;
}

for (int i=0 ; i<n; i++){
  int leftspace = Math·min (i, n-i-1)
  int middlespace = (n-2)* leftspace - 2;

```
        if (middle.space <0){
        System.out.println (sp.repeat (leftspace) + ch);
        }
        else {
        System.out.println (sp.repeat (leftspace) + ch +
                         sp.repeat (middle.space) + ch);
        }
        }
}

public static void main (String [] args){
        printPattern (5);
}
}
```

b) (short) 5022026

large int → short

short → size: 16 bits

range : -32768 to 32767

5022026 is outside the range

result = value % 65536

    ↳ 32768 + 32768

      65536

     2^16 = 65536

5022026 % 65536

41290 > range

41290 - 655366
- 24,246
jshell> (short) 5022026
$7 ==> -24246

c) → No, isBlank () cannot always be used
    as a replacement for isEmpty().

isEmpty (): returns true if string lenght == 0
isBlank (): returns true if string containe
    only whitespace.

String a = "";
String b = " ";

System.out.println (a. isEmpty ()); // true
System.out.println (b. isBlank()); // true.