Derive a class square from class Rectangle. Create one more class circle. Create an interface with only one method called area(). Implement this interface in all the classes. Include appropriate data members and constructors in all classes. Write a PHP program to accept details of a square, circle and rectangle and display the area.

PHP File

```
<?php
    interface shape
      public function area();
    }
    class rectangle implements shape
    {
      public $1,$b,$area;
      function rectangle($1,$b)
      {
        $this->|=$|;
        $this->b=$b;
      public function area()
        $this->area=$this->l*$this->b;
        echo "Area of Rectangle is $this->area <br>";
    class square extends rectangle
    {
      public $b,$area;
      function square($b)
      {
        $this->b=$b;
      public function area()
```

```
$this->area=$this->b*$this->b;
    echo "Area of Square is $this->area <br>";
  }
}
class circle implements shape
{
  public $area,$r,$pi=3.14;
  public function circle($r)
    $this->r=$r;
  public function area()
  {
    $this->area=$this->r*$this->r*$this->pi;
    echo "The area of circle is ".$this->area;
  }
}
$objRect = new rectangle(2,3);
$objRect->area();
$objSq = new square(6);
$objSq->area();
$objCir = new circle(2);
$objCir->area();
?>
```

Implement calculator to convert distances between (both ways) miles and kilometres. One mile is about 1.609 kilometres. User interface (distance.html) has one text-input, two radio-buttons, submit and reset -buttons. Values are posted to PHP-script (distance.php) which calculates the conversions according the user input.

HTML File

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
 <head>
  <title></title>
  <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
 </head>
 <body>
  <form action="distance.php" method="post">
    Distance:-<input type="text" name="dist">
    <select name="unit">
      <option value="km">KM</option>
      <option value="miles">Miles</option>
    </select><br><br>
    <input type="radio" name="type" value="km" checked>KM
    <input type="radio" name="type" value="miles">Miles<br><br>
    <input type="submit" value="Submit">&nbsp;&nbsp;
    <input type="reset" value="Cancel">
  </form>
 </body>
</html>
PHP File
<?php
extract($ POST);
if($unit=="km" && $type=="miles")
  $distance=$dist/1.609;
  echo $distance;
}
```

```
else
{
    $distance=$dist*1.609;
    echo $distance;
}
?>
```

Write PHP program to create input form for Grocery that displays List of grocery items with checkboxes and create a bill according to list of items selected after clicking submit button.

HTML File

?>

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title></title>
  </head>
  <body>
    <form action="grocery.php" method="post">
      <input type="checkbox" name="g[]" value="100">Product 1
      <input type="checkbox" name="g[]" value="200">Product 2
      <input type="checkbox" name="g[]" value="300">Product 3<br>
      <input type="submit" value="Show Bill">
    </form>
  </body>
</html>
PHP File
<?php
extract($_POST);
$total=0;
$len=@count(@$g);
for($i=0;$i<$len;$i++)
{
  $total=$total+$g[$i];
echo "<h1>Final Total of Purchased Grocery is ".$total."</h1>";
```

Slip 16

Write a PHP program that accept customer name, consumer number and number of electricity units consumed from an input form and print electricity bill from following data

```
\square For first 50 units – Rs. 3.50/unit
☐ For next 100 units – Rs. 4.00/unit
\Box For next 100 units – Rs. 5.20/unit
\Box For units above 250 – Rs. 6.50/unit
☐ Fixed meter and service charge- Rs. 150/-
```

HTML File

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
 <head>
   <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
  <title></title>
 </head>
 <body>
  <form action="slip16Action.php" method="post">
    Customer Name :
       <input type="text" name="cname"/>
      Consumer Number :
       <input type="number" name="cnumber"/>
      Electricity Unit :
       <input type="number" name="unit"/>
      <input type="submit" value="Show Bill"/>
```

```
</form>
 </body>
</html>
PHP File
<?php
extract($_POST);
if($unit<=50)
 $bill=($unit*3.50)+150;
 echo "Customer NameConsumer
NumberUnitBill Amount";
 echo "$cname$cnumber$unit$bill";
}
elseif($unit>50 && $unit<=150)
{
 $bill=($unit*4.00)+150;
 echo "Customer NameConsumer
NumberUnitBill Amount";
 echo "$cname$cnumber$unit$bill";
elseif($unit>150 && $unit<=250)
{
 $bill=($unit*5.20)+150;
 echo "Customer NameConsumer
NumberUnitBill Amount";
 echo "$cname$cnumber$unit$bill";
}
else
 $bill=($unit*6.50)+150;
 echo "Customer NameConsumer
NumberUnitBill Amount";
```

```
echo "$cname$cname$scname$sill*;
}
?>
```

Write a PHP program for course registration of Learner in an institute that accept Name, Course to be admitted, Mobile number using input form validation such as Name should be only string of character, mobile number should contain digits with valid length and so on. and give feedback to Learner with registration details including registration number.

HTML File

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title></title>
  </head>
  <body>
    <form action="slip17Action.php" method="post">
      Name:-<input type="text" name="name"><br><br>
      Select Course:-
      <select name="course">
        <option value="BBA-CA">BBA-CA
        <option value="BCA(Science)">BCA(Science)
      </select><br><br>
      Mobile No.:-<input type="text" name="number"/><br><br>
      <input type="submit" value="Submit"/>
    </form>
  </body>
</html>
PHP File
<?php
extract($_POST);
   if(preg_match("/[0-9]/", $name))
    {
      echo "Name is not valid<br>";
    }
    else
      $len=strlen($number);
```

```
if(!(preg_match("/[a-z][A-Z]/", $number)) && $len==10)
    {
     $regNum=rand(1,7000);
     echo "Your Register Successfully and Your Registerd Details <br/> ";
?>
Name
  Course
  Mobile
 <?php echo $name; ?>
  <?php echo $course; ?>
  <?php echo $number; ?>
 <h1>Registration Number :- <?php echo $regNum; ?></h1>
  <?php
    }
    else
    {
      echo "this is not valid Number<br>";
    }
  }
?>
```