**ACTIVITY ANSWER SHEET**

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| Section: | BSIT-2R2 |

**Instructions**:

1. Push your output on your GITHUB repository.

2. Use the answer sheet provided save it as PDF file then push it to your GitHub.

3. Answer the ff. problems write it on the answer sheet.

4. Late submissions will no longer be accepted.

5. Caught copying outputs of others will be given sanctions.

6. Failure to follow these instructions will be given sanctions.

**Activity 1: Control Structures**

1. Write down the syntax in PHP for the ff.

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| 1. if | if (condition) {     code to be executed if condition is true; } |
| 2. if…else | if (condition) {  code to be executed if condition is true;  } else {  code to be executed if condition is false;  } |
| 3. if…else if…else | if (condition) {  code to be executed if this condition is true;  } elseif (condition) {  code to be executed if first condition is false and this condition is true;  } else {  code to be executed if all conditions are false;  } |
| 4. switch…case | switch (n) {  case label1:  code to be executed if n=label1;  break;  case label2:  code to be executed if n=label2;  break;  case label3:  code to be executed if n=label3;  break;  ...  default:  code to be executed if n is different from all labels;  } |
| 5. for loop | for (init counter; test counter; increment counter) {  code to be executed for each iteration;  } |
| 6. do while loop | do {  code to be executed;  } while (condition is true); |
| 7. while loop | while (condition is true) {  code to be executed;  } |
| 8. foreach loop | foreach ($array as $value) {  code to be executed;  } |
| 9. break statement | jump statement;  break; |
| 10. continue statement | jump-statement;  continue; |
| 11. try…catch | <?php  //create function with an exception  function checkNum($number) {  if($number>1) {  throw new Exception("Value must be 1 or below");  }  return true;  }  //trigger exception in a "try" block  try {  checkNum(2);  //If the exception is thrown, this text will not be shown  echo 'If you see this, the number is 1 or below';  }  //catch exception  catch(Exception $e) {  echo 'Message: ' .$e->getMessage();  }  ?> |

2. Solve the ff. problem using PHP.

a. Write a program that checks if value is a number (integer).

Sample input: ‘1’ Sample input: 1

Expected output: Not a number Expected output: A number

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b. Write a program that checks if a value is positive or negative and odd or even.

Sample input: 0 Sample input: -1

Expected output: Positive & Even Expected output: Negative and Odd

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c. Write a program that checks if a value is palindrome.

Sample input: Anna Sample input: Bogart

Expected output: Palindrome Expected output: Not a Palindrome

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d. Write a program to calculate and print the factorial of a number using a for loop.

Sample input: 4

Expected output: 24

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e. Write a PHP program to generate and display the first n lines of a Floyd triangle.

Sample input: 3

Sample output:

1

2 3

4 5 6

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**Activity 2: PHP Built-in Functions**

Write down the functionalities of the ff. built-in functions in PHP.

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| Array | array()  array\_change\_key\_case()  array\_chunk()  array\_column()  array\_combine()  array\_count\_values()  array\_diff()  array\_diff\_assoc()  array\_diff\_key()  array\_diff\_uassoc()  array\_diff\_ukey()  array\_fill()  array\_fill\_keys()  array\_filter()  array\_flip()  array\_intersect()  array\_intersect\_assoc()  array\_intersect\_key()  array\_intersect\_uassoc()  array\_intersect\_ukey()  array\_key\_exists()  array\_keys()  array\_map()  array\_merge()  array\_merge\_recursive()  array\_multisort()  array\_pad()  array\_pop()  array\_product()  array\_push()  array\_rand()  array\_reduce()  array\_replace()  array\_replace\_recursive()  array\_reverse()  array\_search()  array\_shift()  array\_slice()  array\_splice()  array\_sum()  array\_udiff()  array\_udiff\_assoc()  array\_udiff\_uassoc()  array\_uintersect()  array\_uintersect\_assoc()  array\_uintersect\_uassoc()  array\_unique()  array\_unshift()  array\_values()  array\_walk()  array\_walk\_recursive()  arsort()  asort()  compact()  count()  current()  each()  end()  extract()  extract()  in\_array()  key()  krsort()  ksort()  list()  natcasesort()  natsort()  next()  pos()  prev()  range()  reset()  rsort()  shuffle()  sizeof()  sort()  uasort()  uksort()  usort() |
| Calendar | cal\_days\_in\_month()  cal\_from\_jd()  cal\_info()  cal\_to\_jd()  easter\_date()  easter\_days()  frenchtojd()  gregoriantojd()  jddayofweek()  jdmonthname()  jdtofrench()  jdtogregorian()  jdtojewish()  jdtojulian()  jdtounix()  jewishtojd()  juliantojd()  unixtojd() |
| Date | checkdate()  date\_add()  date\_create\_from\_format()  date\_create()  date\_date\_set()  date\_default\_timezone\_get()  date\_default\_timezone\_set()  date\_diff()  date\_format()  date\_get\_last\_errors()  date\_interval\_create\_from\_date\_string()  date\_interval\_format()  date\_isodate\_set()  date\_modify()  date\_offset\_get()  date\_parse\_from\_format()  date\_parse()  date\_sub()  date\_sun\_info()  date\_sunrise()  date\_sunset()  date\_time\_set()  date\_timestamp\_get()  date\_timestamp\_set()  date\_timezone\_get()  date\_timezone\_set()  date()  getdate()  gettimeofday()  gmdate()  gmmktime()  gmstrftime()  idate()  localtime()  microtime()  mktime()  strftime()  strptime()  strtotime()  time()  timezone\_abbreviations\_list()  timezone\_identifiers\_list()  timezone\_location\_get()  timezone\_name\_from\_ abbr()  timezone\_name\_get()  timezone\_offset\_get()  timezone\_open()  timezone\_transitions\_get()  timezone\_version\_get() |
| Directory | chdir()  chroot()  closedir()  dir()  getcwd()  opendir()  readdir()  rewinddir()  scandir() |
| Error | debug\_backtrace()  debug\_print\_backtrace()  error\_clear\_last()  error\_get\_last()  error\_log()  error\_reporting()  restore\_error\_handler()  restore\_exception\_handler()  set\_error\_handler()  set\_exception\_handler()  trigger\_error()  user\_error() |
| File System | basename()  chgrp()  chmod()  chown()  clearstatcache()  copy()  delete()  dirname()  disk\_free\_space()  disk\_total\_space()  diskfreespace()  fclose()  feof()  fflush()  fgetc()  fgetcsv()  fgets()  fgetss()  file()  file\_exists()  file\_get\_contents()  file\_put\_contents()  fileatime()  filectime()  filegroup()  fileinode()  filemtime()  fileowner()  fileperms()  filesize()  filetype()  flock()  fnmatch()  fopen()  fpassthru()  fputcsv()  fputs()  fread()  fscanf()  fseek()  fstat()  ftell()  ftruncate()  fwrite()  glob()  is\_dir()  is\_executable()  is\_file()  is\_link()  is\_readable()  is\_uploaded\_file()  is\_writable()  is\_writeable()  lchgrp()  lchown()  link()  linkinfo()  lstat()  mkdir()  move\_uploaded\_file()  parse\_ini\_file()  parse\_ini\_string()  pathinfo()  pclose()  popen()  readfile()  readlink()  realpath()  realpath\_cache\_get()  realpath\_cache\_size()  rename()  rewind()  rmdir()  set\_file\_buffer()  stat()  symlink()  tempnam()  tmpfile()  touch()  umask()  unlink() |
| Filter | filter\_has\_var()  filter\_id()  filter\_input()  filter\_input\_array()  filter\_list()  filter\_var()  filter\_var\_array() |
| FTP | ftp\_alloc()  ftp\_cdup()  ftp\_chdir()  ftp\_chmod()  ftp\_close()  ftp\_connect()  ftp\_delete()  ftp\_exec()  ftp\_fget()  ftp\_fput()  ftp\_get()  ftp\_get\_option()  ftp\_login()  ftp\_mdtm()  ftp\_mkdir()  ftp\_mlsd()  ftp\_nb\_continue()  ftp\_nb\_fget()  ftp\_nb\_fput()  ftp\_nb\_get()  ftp\_nb\_put()  ftp\_nlist()  ftp\_pasv()  ftp\_put()  ftp\_pwd()  ftp\_quit()  ftp\_raw()  ftp\_rawlist()  ftp\_rename()  ftp\_rmdir()  ftp\_set\_option()  ftp\_site()  ftp\_size()  ftp\_ssl\_connect()  ftp\_systype() |
| Libxml | libxml\_clear\_errors()  libxml\_disable\_entity\_loader()  libxml\_get\_errors()  libxml\_get\_last\_error()  libxml\_set\_external\_entity\_loader()  libxml\_set\_streams\_context()  libxml\_use\_internal\_errors() |
| Mail | ezmlm\_hash()  mail() |
| Math | abs()  acos()  acosh()  asin()  asinh()  atan()  atan2()  atanh()  base\_convert()  bindec()  ceil()  cos()  cosh()  decbin()  dechex()  decoct()  deg2rad()  exp()  expm1()  floor()  fmod()  getrandmax()  hexdec()  hypot()  intdiv()  is\_finite()  is\_infinite()  is\_nan()  lcg\_value()  log()  log10()  log1p()  max()  min()  mt\_getrandmax()  mt\_rand()  mt\_srand()  octdec()  pi()  pow()  rad2deg()  rand()  round()  sin()  sinh()  sqrt()  srand()  tan()  tanh() |
| Misc | connection\_aborted()  connection\_status()  connection\_timeout()  constant()  define()  defined()  die()  eval()  exit()  get\_browser()  \_\_halt\_compiler()  highlight\_file()  highlight\_string()  hrtime()  ignore\_user\_abort()  pack()  php\_strip\_whitespace()  show\_source()  sleep()  sys\_getloadavg()  time\_nanosleep()  time\_sleep\_until()  uniqid()  unpack()  usleep() |
| MySQLi | affected\_rows()  autocommit()  begin\_transaction()  change\_user()  character\_set\_name()  close()  commit()  connect()  connect\_errno()  connect\_error()  data\_seek()  debug()  dump\_debug\_info()  errno()  error()  error\_list()  fetch\_all()  fetch\_array()  fetch\_assoc()  fetch\_field()  fetch\_field\_direct()  fetch\_fields()  fetch\_lengths()  fetch\_object()  fetch\_row()  field\_count()  field\_seek()  get\_charset()  get\_client\_info()  get\_client\_stats()  get\_client\_version()  get\_connection\_stats()  get\_host\_info()  get\_proto\_info()  get\_server\_info()  get\_server\_version()  info()  init()  insert\_id()  kill()  more\_results()  multi\_query()  next\_result()  options()  ping()  poll()  prepare()  query()  real\_connect()  real\_escape\_string()  real\_query()  reap\_async\_query()  refresh()  rollback()  select\_db()  set\_charset()  set\_local\_infile\_default()  set\_local\_infile\_handler()  sqlstate()  ssl\_set()  stat()  stmt\_init()  store\_result()  thread\_id()  thread\_safe()  use\_result()  warning\_count() |
| Network | checkdnsrr()  closelog()  define\_syslog\_variables()  dns\_check\_record()  dns\_get\_mx()  dns\_get\_record()  fsockopen()  gethostbyaddr()  gethostbyname()  gethostbynamel()  gethostname()  getmxrr()  getprotobyname()  getprotobynumber()  getservbyname()  getservbyport()  header\_register\_callback()  header\_remove()  header()  headers\_list()  headers\_sent()  http\_response\_code()  inet\_ntop()  inet\_pton()  ip2long()  long2ip()  openlog()  pfsockopen()  setcookie()  setrawcookie()  socket\_get\_status()  socket\_set\_blocking()  socket\_set\_timeout()  syslog() |
| SimpleXML | \_construct()  \_toString()  addAttribute()  addChild()  asXML()  attributes()  children()  count()  getDocNamespaces()  getName()  getNamespaces()  registerXPathNamespace()  saveXML()  simplexml\_import\_dom()  simplexml\_load\_file()  simplexml\_load\_string()  xpath()  current()  getChildren()  hasChildren()  key()  next()  rewind() |
| Stream | set\_socket\_blocking()  stream\_bucket\_prepend()  stream\_context\_create()  stream\_context\_get\_default()  stream\_context\_get\_options()  stream\_context\_get\_params()  stream\_context\_set\_default()  stream\_context\_set\_options()  stream\_context\_set\_params()  stream\_copy\_to\_stream()  stream\_filter\_append()  stream\_filter\_prepend()  stream\_filter\_register()  stream\_filter\_remove()  stream\_get\_contents()  stream\_get\_filters()  stream\_get\_line()  stream\_get\_meta\_data()  stream\_get\_transports()  stream\_get\_wrappers()  stream\_is\_local()  stream\_isatty()  stream\_notification\_callback()  stream\_register\_wrapper()  stream\_resolve\_include\_path()  stream\_select()  stream\_set\_blocking()  stream\_set\_chunk\_size()  stream\_set\_read\_buffer()  stream\_set\_timeout()  stream\_set\_write\_buffer()  stream\_socket\_accept()  stream\_socket\_client()  stream\_socket\_enable\_crypto()  stream\_socket\_get\_name()  stream\_socket\_pair()  stream\_socket\_recvfrom()  stream\_socket\_sendto()  stream\_socket\_server()  stream\_socket\_shutdown()  stream\_supports\_lock()  stream\_wrapper\_register()  stream\_wrapper\_restore()  stream\_wrapper\_unregister() |
| String | addcslashes()  addslashes()  bin2hex()  chop()  chr()  chunk\_split()  convert\_cyr\_string()  convert\_uudecode()  convert\_uuencode()  count\_chars()  crc32()  crypt()  echo()  explode()  fprintf()  get\_html\_translation\_table()  hebrev()  hebrevc()  hex2bin()  html\_entity\_decode()  htmlentities()  htmlspecialchars\_decode()  htmlspecialchars()  implode()  join()  lcfirst()  levenshtein()  localeconv()  ltrim()  md5()  md5\_file()  metaphone()  money\_format()  nl\_langinfo()  nl2br() Inserts  number\_format()  ord()  parse\_str()  print()  printf()  quoted\_printable\_decode()  quoted\_printable\_encode()  quotemeta()  rtrim()  setlocale()  sha1()  sha1\_file()  similar\_text()  soundex()  sprintf()  sscanf()  str\_getcsv()  str\_ireplace()  str\_pad()  str\_repeat()  str\_replace()  str\_rot13()  str\_shuffle()  str\_split()  str\_word\_count()  strcasecmp()  strchr()  strcmp()  strcoll()  strcspn()  strip\_tags()  stripcslashes()  stripslashes()  stripos()  stristr()  strlen()  strnatcasecmp()  strnatcmp()  strncasecmp()  strncmp()  strpbrk()  strpos()  strrchr()  strrev()  strripos()  strrpos()  strspn()  strstr()  strtok()  strtolower()  strtoupper()  strtr()  substr()  substr\_compare()  substr\_count()  substr\_replace()  trim()  ucfirst()  ucwords()  vfprintf()  vprintf()  vsprintf()  wordwrap() |
| XML Parser | utf8\_decode()  utf8\_encode()  xml\_error\_string()  xml\_get\_current\_byte\_index()  xml\_get\_current\_column\_number()  xml\_get\_current\_line\_number()  xml\_get\_error\_code()  xml\_parse()  xml\_parse\_into\_struct()  xml\_parser\_create\_ns()  xml\_parser\_create()  xml\_parser\_free()  xml\_parser\_get\_option()  xml\_parser\_set\_option()  xml\_set\_character\_data\_handler()  xml\_set\_default\_handler()  xml\_set\_element\_handler()  xml\_set\_external\_entity\_ref\_handler()  xml\_set\_notation\_decl\_handler()  xml\_set\_object()  xml\_set\_processing\_instruction\_handler()  xml\_set\_start\_namespace\_decl\_handler ()  xml\_set\_unparsed\_entity\_decl\_handler() |
| Zip | zip\_close()  zip\_entry\_close()  zip\_entry\_compressedsize()  zip\_entry\_compressionmethod()  zip\_entry\_filesize()  zip\_entry\_name()  zip\_entry\_open()  zip\_entry\_read()  zip\_open()  zip\_read() |
| Timezones | DateTimeZone::\_\_construct  DateTimeZone::getLocation  DateTimeZone::getName  DateTimeZone::getOffset  DateTimeZone::getTransitions  DateTimeZone::listAbbreviations  DateTimeZone::listIdentifiers |

**Activity 3: Regular Expression**

1. Define Regular Expression (RegEx) and provide example programming scenario where you can use (RegEx). Provide example syntax in PHP.

Regular expressions commonly known as a regex (regexes) are a sequence of characters describing a special search pattern in the form of text string. They are basically used in programming world algorithms for matching some loosely defined patterns to achieve some relevant tasks. Some times regexes are understood as a mini programming language with a pattern notation which allows the users to parse text strings. The exact sequence of characters are unpredictable beforehand, so the regex helps in fetching the required strings based on a pattern definition.

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| <?php  // the string to match against  $string = 'The cat sat on the mat';  // match the beginning of the string  echo preg\_match("/^The/", $string);  // match the end of the string  echo preg\_match("/mat\z/", $string); // returns 1  // match anywhere in the string  echo preg\_match("/dog/", $string); // returns 0 as no match was found for dog.  ?> |

2. Solve the ff. problem using Regular Expressions.

a. Write a PHP script that checks if a string contains another string

Sample String: 'The quick brown fox'

Test input: ‘Fox’

Expected output: Fox is found the string

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| <?php  $str1 = 'The quick brown fox.';  if (strpos($str1,'fox') !== false)  {  echo 'Fox is found the string.';  }  else  {  echo 'Fox is not found as string.';  }  ?> |

b. Write a PHP script that removes the last word from a string.

Sample String: 'The quick brown fox'

Expected output: ‘The quick brown'

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| <?php  $str1 = 'The quick brown fox';  echo preg\_replace('/\W\w+\s\*(\W\*)$/', '$1', $str1)."\n";  ?> |

c. Write a PHP script to remove nonnumeric characters except comma and dot.

Sample String: '/$123,34.00A#'

Expected output: 123,34.00

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| <?php  $str1 = "/$123,34.00A#";  echo preg\_replace("/[^0-9,.]/", "", $str1)."\n";  ?> |

d. Write a PHP script to extract text (within parenthesis) from a string.

Sample String: ‘The quick brown [fox].’

Expected output: Fox

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| <?php  $my\_text = 'The quick brown [fox].';  preg\_match('#\[(.\*?)\]#', $my\_text, $match);  print $match[1]."\n";  ?> |

e. Write a PHP script to remove all characters from a string except a-z A-Z 0-9 or " ". Sample String: ‘abcde$ddfd @abcd )der]’

Expected output: abcdeddfd abcd der

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| <?php  $string = 'abcde$ddfd @abcd )der]';  $newstr = preg\_replace("/[^A-Za-z0-9 ]/", '', $string);  echo ''.$newstr."\n";  ?> |

**Activity 4: Error Handling**

1. List down the different PHP errors. Provide example code on how to handle these errors.

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| *Parse error or Syntax Error*  <?php  $x = "geeks";  y = "Computer science";  echo $x;  echo $y;  ?>  PHP Parse error: syntax error, unexpected '='  in /home/18cb2875ac563160a6120819bab084c8.php on line 3 |

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| *Fatal Error*  <?php    function add($x, $y)  {  $sum = $x + $y;  echo "sum = " . $sum;  }  $x = 0;  $y = 20;  add($x, $y);    diff($x, $y);  ?>  PHP Fatal error: Uncaught Error:  Call to undefined function diff()  in /home/36db1ad4634ff7deb7f7347a4ac14d3a.php:12  Stack trace:  #0 {main}  thrown in /home/36db1ad4634ff7deb7f7347a4ac14d3a.php on line 12 |

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| *Warning Errors*  <?php    $x = "GeeksforGeeks";    include ("gfg.php");    echo $x . "Computer science portal";  ?>  PHP Warning: include(gfg.php): failed to  open stream: No such file or directory in  /home/aed0ed3b35fece41022f332aba5c9b45.php on line 5  PHP Warning: include(): Failed opening 'gfg.php'  for inclusion (include\_path='.:/usr/share/php') in  /home/aed0ed3b35fece41022f332aba5c9b45.php on line 5 |

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| *Notice Error*  <?php    $x = "GeeksforGeeks";    echo $x;    echo $geeks;  ?>  PHP Notice: Undefined variable: geeks in  /home/84c47fe936e1068b69fb834508d59689.php on line 5 |