Time : $2\frac{1}{2}$ Hours]   [Total Marks : 70

Instructions : (1) All main questions are compulsory.

(2) Draw diagrams wherever necessary.

Question - 1 (Unit - 1)

1 (a) Fill in the blanks :   4

(1) A _____ is sequence of immutable Python objects.

(2) The term _____ is a commonly used short form meaning "regular expression".

(3) _____ Database is included in Python.

(4) Full form of IDLE is _____.

(b) Answer in brief : (any 1 out of 2)   2

(1) Explain Python membership operators.

(2) Explain Dictionary data type with example.

(c) Answer in detail : (any 1 out of 2)   3

(1) Write Advantages and Disadvantages of Python.

(2) List and explain in brief data types of Python.

(d) Write short note : (any **1** out of 2) **5**

(1) How to define function in Python ? Explain with example.

(2) Write a Python program to accept score as number and give output as below :

(a) If score more than 90 print "Excellent"

(b) If score between 70-90 print "Very Good"

(c) If score between 50-70 print "Good"

(d) If score less than 50 print "Poor"

Question - 2 (Unit - 2)

2 (a) Write the use of following commands : **4**

(1) python manage.py flush

(2) python manage.py sqlmigrate

(3) python manage.py runserver 8080

(4) python manage.py dumpdata

(b) Answer in brief : (any **1** out of 2) **2**

(1) What is Web Application ? Write benefit of Web Application.

(2) Describe structure of Django project architecture.

(c) Answer in detail : (any **1** out of 2) **3**

(1) What is Django Template System ? Explain any two basic template tags.

(2) What is Django ? Write advantages of using Django framework.

(d) Write short note : (any **1** out of 2) **5**

(1) Explain Client-server Request and Response concept with example.

(2) Write in detail about **__init__.py** and **settings.py** in Django project.

Question - 3 (Unit - 3)

3   (a)   Answer in one word or one line :   4

      (1)   __str__( )

      (2)   render( )

      (3)   get_list_or_404( )

      (4)   filter( )

   (b)   Answer in brief : (any 1 out of 2)   2

      (1)   Write purpose of using 'makemigrations' command.

      (2)   List only Django model data types.

   (c)   Answer in detail : (any 1 out of 2)   3

      (1)   Write steps to configure MySql Database in Django.

      (2)   How to define Primary Key and Foreign Key in Model.

   (d)   Write short note : (any 1 out of 2)   5

      (1)   Explain method of OneToOneField( ) and ManyToManyField( ) of model class.

      (2)   What is Model ? Write step to migrate database.

Question - 4 (Unit - 4)

4   (a)   Answer in one word or one line :   4

      (1)   createsuperuser

      (2)   form.is_valid( )

      (3)   HttpResponseRedirect( )

      (4)   admin.site.register ( )

   (b)   Answer in brief : (any 1 out of 2)   2

      (1)   What is the use of list_display and list_filter in Django Admin Panel.

      (2)   Write short note on Python dictionary type.

   (c)   Answer in detail : (any 1 out of 2)   3

      (1)   Write steps of create Django Model Forms.

      (2)   Write short note on Form validation.

(d) Write short note : (any **1** out of 2) **5**

   (1) How to activate, use, and customize Django's admin interface.

   (2) Explain HttpRequest.GET and HttpRequest.POST methods.

Question - 5 (Unit - 5)

5   (a) Answer in one word or one line : **4**

   (1) pip

   (2) virtualenv

   (3) GitHub

   (4) UnitTest

   (b) Answer in brief : (any **1** out of 2) **2**

   (1) How to set up Cache in memory ?

   (2) Explain **get_expiry_age( )** and **get_expiry_date( )** methods.

   (c) Answer in detail : (any **1** out of 2) **3**

   (1) Write short note on unittest2.

   (2) Write steps to deploy Django application on GitHub.

   (d) Write short note : (any **1** out of 2) **5**

   (1) How to manage cookies and session in Django ? Explain with example.

   (2) What are automated tests ? Why you need to create tests.

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