☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA
(An Autonomous Institute Affiliated to AKTU, Lucknow)
M.Tech (Integrated)
SEM: V - THEORY EXAMINATION (2024 - 2025)
Subject: Python web development with Django

Time: 3 Hours   Max. Marks: 100

General Instructions:

IMP: *Verify that you have received the question paper with the correct course, code, branch etc.*
1. This Question paper comprises of three Sections -A, B, & C. It consists of Multiple Choice Questions (MCQ's) & Subjective type questions.
2. Maximum marks for each question are indicated on right -hand side of each question.
3. Illustrate your answers with neat sketches wherever necessary.
4. Assume suitable data if necessary.
5. Preferably, write the answers in sequential order.
6. No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked.

SECTION-A   20

1. Attempt all parts:-

1-a.   Django was introduced by (CO1,K1)   1

    (a)   Adrian Holovaty

    (b)   Bill Gates

    (c)   Rasmus Lerdorf

    (d)   Tim Berners-Lee

1-b.   Django supports the _____ pattern. (CO1,K1)   1

    (a)   MVI

    (b)   MVP

    (c)   MVC

    (d)   MVZ

1-c.   ORM stands for___(CO2,K1)   1

    (a)   Operational Relational Mapper

    (b)   Object Relational Mapper

    (c)   Object Relational Manager

    (d)   Object Read Mapping

1-d.   In Django, how many possible inheritance styles.(CO2,K1)   1

    (a)   ONE

    (b)   TWO

    (c)   THREE

(d)   FOUR

1-e.   Command used for starting the Python interactive interpreter. (CO3,K1)   1

    (a)   Django-admin shell

    (b)   Django-admin help

    (c)   Django-admin version

    (d)   Django-admin showmigrations

1-f.   Forms in django created by (CO3,K1)   1

    (a)   UserCreationForm method

    (b)   UserAuthenticatoinForm method

    (c)   Userupdation method

    (d)   UseruCreation method

1-g.   The number of databases officially supported by Django is _____.(CO4,K1)   1

    (a)   3

    (b)   4

    (c)   2

    (d)   5

1-h.   Some basic operations of Django migrations.(CO4,K1)   1

    (a)   Make migrations

    (b)   Migrate

    (c)   Both

    (d)   None of the above

1-i.   Choose a shortcut to staging all the changes you have. (CO5,K1)   1

    (a)   Git add

    (b)   Git commit

    (c)   Git commit add

    (d)   None of the these

1-j.   Command to check the created, modified, deleted files in gitbash before Commit.(CO5,K1)   1

    (a)   Git log

    (b)   Git status

    (c)   Git show

    (d)   Git commit

2. Attempt all parts:-

2.a.   Explain Namedtuple() function.(CO1,K2)   2

2.b.   Explain CRUD in django in details.(CO2,K2)   2

2.c.   Differentiate between Authentication and Authorization.(CO3,K2)   2

2.d.   Describe cookies.(CO4,K3)   2

2.e.   Elaborate advantages of Heroku.(CO5,K2)   2

SECTION-B   30

3. Answer any <u>five</u> of the following:-

3-a.   Explain Web Scraping with example.(CO1,K3)   6

3-b.   Explain Zappa. Write code for illustrating use of Zappa.(CO1,K3)   6

3-c.   Explain Django views and URLs with a suitable diagram.(CO2,K3)   6

3-d.   Discuss django MVC architecture in details with diagram.(CO2,K3)   6

3.e.   Describe how to perform login functionality test and logout. (CO3,K4)   6

3.f.   Explain the differences between a session and a cookie in Django.(CO4,K3)   6

3.g.   Explain working of Django Heroku with example. (CO5,K4)   6

SECTION-C   50

4. Answer any <u>one</u> of the following:-

4-a.   Explain cherryPy and also discusss strengths of it.(CO1,K3)   10

4-b.   Explain TurboGears and discuss its advantages and disadvantages.(CO1,K3)   10

5. Answer any <u>one</u> of the following:-

5-a.   Write all step to Create Your First Django Model Student where you will have   10
            fields like roll no, name, class and department. (CO2,K3)

5-b.   Demonstrate how creating a Django model results in the creation of a   10
            corresponding table in the database, with the help of a diagram.(CO2,K4)

6. Answer any <u>one</u> of the following:-

6-a.   Explain the steps required to build the form with UserCreationForm. Also discuss   10
            the way to add email field in it.(CO3,K4)

6-b.   Explain the role of decorators in django. How it can be implemented in web app.Is   10
            it feasible to always put decorator in your pages. (CO3,K4)

7. Answer any <u>one</u> of the following:-

7-a.   Explain request-response life cycle of Django with diagram and code.(CO4,K3)   10

7-b.   Explain the file structure of a typical Django project.(CO4,K3)   10

8. Answer any <u>one</u> of the following:-

8-a.   Define static files in Django and explain their usage with the help of a flow   10
            diagram.(CO5,K4)

8-b.   Explain in brief (1) Heroku data services (2) Heroku enterprise (CO5,K4)   10

.