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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

B.Tech

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 discuss 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 fields like roll no, name, class and department. (CO2,K3)	10
5-b.	Demonstrate how creating a Django model results in the creation of a corresponding table in the database, with the help of a diagram.(CO2,K4)	10
6. Answer any <u>one</u> of the following:-		
6-a.	Explain the steps required to build the form with UserCreationForm. Also discuss the way to add email field in it.(CO3,K4)	10
6-b.	Explain the role of decorators in django. How it can be implemented in web app.Is it feasible to always put decorator in your pages. (CO3,K4)	10
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 diagram.(CO5,K4)	10
8-b.	Explain in brief (1) Heroku data services (2) Heroku enterprise (CO5,K4)	10