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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 (2023- 2024)

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. | pip stand for in python.(CO1) | 1 |
| | (a) Unlimited length | |
| | (b) All private members must have leading and trailing underscores | |
| | (c) Preferred Installer Program | |
| | (d) None of the mentioned | |
| 1-b. | MVC pattern is based on _____ components.(CO1) | 1 |
| | (a) 1 | |
| | (b) 3 | |
| | (c) 4 | |
| | (d) 2 | |
| 1-c. | In MVC pattern , Model is the component which contains ? (CO2) | 1 |
| | (a) Input Logic | |
| | (b) UI Logic | |
| | (c) Business Logic | |

- (d) Output Logic
- 1-d. Advantages of Django are ____.(CO2) 1
- (a) Excellent Documentation
 - (b) Rapid development
 - (c) Neither (a) nor (b)
 - (d) Both (a) and (b)
- 1-e. Django authentication system handles (CO3) 1
- (a) User accounts
 - (b) Groups
 - (c) Permission and cookie based user session
 - (d) All of the above
- 1-f. SECRET_KEY works for. (CO3) 1
- (a) Cryptographic signing
 - (b) Authentication
 - (c) Python's built-in secrets module.
 - (d) All of the above
- 1-g. Which of these variables are the settings for django contrib staticfiles app? (CO4) 1
- (a) STATIC_URL
 - (b) STATIC_ROOT
 - (c) STATICFILES_DIRS
 - (d) All of the above
- 1-h. Caching strategies in Django are. (CO4) 1
- (a) File system caching
 - (b) In-memory caching
 - (c) Both A and B
 - (d) None
- 1-i. After adding a file in Github or Git, it becomes. (CO5) 1
- (a) Committed
 - (b) Untracked
 - (c) Staged
 - (d) Modified
- 1-j. Choose a shortcut to staging all the changes you have. (CO5) 1
- (a) Git add

- (b) Git commit
- (c) Git commit add
- (d) None of the these

2. Attempt all parts:-

- 2.a. Define Django Framework. (CO1) 2
- 2.b. Express what are Django Models. (CO2) 2
- 2.c. Discuss Django Authentication System. (CO3) 2
- 2.d. Demonstrate how cookies work in Django. (CO4) 2
- 2.e. What do you mean by the term Heroku? (CO5) 2

SECTION B

30

3. Answer any five of the following:-

- 3-a. Explain Zappa and Fask in detail. (CO1) 6
- 3-b. Explain Django architecture with Diagram.(CO1) 6
- 3-c. With suitable diagram explain Django Views and Urls. (CO2) 6
- 3-d. Explain Django with its unique features in detail. (CO2) 6
- 3.e. Explain the way to add grid layout on registration page. (CO3) 6
- 3.f. Discuss the ways you can set up the database in Django. (CO4) 6
- 3.g. Explain how to push project from local system to Github. (CO5) 6

SECTION C

50

4. Answer any one of the following:-

- 4-a. Explain Tkinter-GUI applications in detail with example. (CO1) 10
- 4-b. Explain any five frameworks in python for Web development. (CO1) 10

5. Answer any one of the following:-

- 5-a. Django comes with a default database which is SQLite. How do you connect your Django project to the database? (CO2) 10
- 5-b. Django can be broken into many components like model.py , url.py and view.py explain each in brief ? (CO2) 10

6. Answer any one of the following:-

- 6-a. Explain the authentication and authorization system in django.Discuss the difference between them. (CO3) 10
- 6-b. Explain User, Groups and Permission with respect to django authentication system. (CO3) 10

7. Answer any one of the following:-

- 7-a. Explain the file structure of a typical Django project. (CO4) 10
- 7-b. Elaborate different types of middleware. Define the Django Middleware Structure. (CO4) 10

8. Answer any one of the following:-

- 8-a. What is the difference between Decentralized and Centralized Version Control system ? (CO5) 10
- 8-b. Name a few Git commands with their function. (CO5) 10

COP MARCH 2024