



National University

B.Sc. (Hons.) in CSE, 3rd Year, 6th Semester Examination-2020

CSE - 530220 [Software Engineering Lab]

Time: 3 hours

Full Marks : 40

[N. B. Answer any one of the following problems.]

Problem No. 1:

Online Reservation and Booking System: In this system, administrator offers various reservation systems such as resorts, vehicles, conference hall etc. Administrator makes an implementation on Check in/Check out facility, record the customer details, customer manages the booking easily, adapt the pricing, make sure about online payments, customization of reservation.

Problem No. 2:

Class Attendance Management System: In this system, the colleges or institutes affiliated with National University want to develop a system that's keeps track the daily attendance records of all the students in a particular class, where a respective teacher can log in to the system and take attendance on this system. The system also label the specific teacher's number of courses, class time, and number of students, course name, and department name. The system shows the overall scenario of the semester's class attendance.

Problem No. 3:

Project management software: The project manager will have the user interface to add a project. Divide the project into multiple parts and assign certain parts to certain programmer/Developer. The Project manager will be able to monitor all the projects. Developers will have the interface to create subtasks to the assigned tasks and also have the interface to mark the task as completed. If the deadline is met, mark as green otherwise if the deadline is surpassed but the project is not completed, mark as red. Each task/subtask will have a comment section where all can comment and provide updates to the task.

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Alm

Amr

Problem No. 4:

Online Shop Management System: In this system, the administrator keeps user interface, offer multimedia catalogs on Home appliances, men/women wardrobe, Office equipment, automobiles, phone and telecommunication etc. with product details, price and appropriate photograph. User can easily access the categories and choose the specific item, can order that item effortlessly, there must be online payment options and exchange options in due times.

Problem No. 5:

Hospital Management System: In this system patients request for appointment for any doctor. The details of the existing patients are retrieved by the system. New patients update their details in the system before they request for appointment with the help of assistant. The assistant confirms the appointment based on the availability of free slots for the respective doctors and the patient is informed. Assistant may cancel the appointment at any time.

N. B: Student can develop this software either web based or desktop based.

Marks Distribution:

(i) Analysis and Design	: 10
(ii) Implementation	: 15
(iii) Viva	: 10
(iv) Result	: 05
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Total	: 40

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Subra

Prasad

National University
B. Sc. (Hons) in Computer Science and Engineering
Part-3, 6th Semester Examination 2020
530222(Computer Networking Lab)

Time: 3 Hours

Full Marks: 40

There are two parts in this question. Perform one experiment from each part

Part A (Packet Tracer Based Experiments)

- 1) Design and configure a network infrastructure with two networks connected by a Cisco router. Also configure DHCP for one network.
- 2) Design and configure a network infrastructure with 4 networks connected by two Cisco routers. Configure static routing for these networks.
- 3) Using RIPv1 or RIPv2 dynamic routing protocol, connect 4 networks using two routers.
- 4) Design and configure a network infrastructure with 4 subnets connected by a Cisco router. Use VLSM methods for IP configuration.
- 5) Implement OSPF using Packet Tracer.
- 6) Implement EIGRP using Packet Tracer.

Part B(Server Configuration Based Experiments)

- 1) Install and configure DNS server using Windows or Linux platform.
- 2) Install and configure FTP server using Windows or Linux platform.
- 3) Install and configure HTTP server using Windows or Linux platform.
- 4) Install and configure Mail server using Windows or Linux platform.

Distribution of marks for each experiment:

- | | |
|--------------------------------|------|
| i) Theory and Configuration | : 10 |
| ii) Implementation and Testing | : 05 |
| iii) Viva | : 05 |

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National University
B.Sc.(Hons.) in Computer Science and Engineering
Part-III, 6th Semester Examination-2020
CSE- 530224
(Embedded System Programming Lab)

Time: 3 Hours

Full Marks: 40

N.B. : Answer any one question from the following.

- ✓ 1. Design and develop a reprogrammable embedded Computer using 8051 Microcontroller.
2. (a) Configure timer control registers of 8051 and develop a program to generate delay.
(b) Use of general purpose I/O port of two controllers for data transfer.
3. (a) Simulate Binary Counter (8bits) on LEDs.
(b) To interface 8 LEDs at I/O ports and create different patterns.
4. (a) Serial I/O : Configure 8051 Serial port for Asynchronous Serial Communication.
(b) To demonstrate seven segments LED display and generate counting from 0 to 99.
5. (a) Interface 8051 with D/A converter and generate Triangular waves on Oscilloscope.
(b) Using D/A converter generate sine wave on Oscilloscope with the help of a lookup table.
6. Interface Stepper motor with 8051.
7. Generate Traffic signals.
8. Implement Temperature controller.

Marks Distribution:

1. Source Code	:10
2. Circuit Design	:10
3. Result	:10
4. Viva-voce	:10
Total=40	

20/05/20

Adina

Q.1

Q.1