

B.C.A. SEM–V (2014 COURSE) CBCS : SUMMER - 2018
SUBJECT : INTRODUCTION TO THE INTERNET TECHNOLOGIES

Day : **Tuesday**
Date : **24/04/2018**

S-2018-1710

Time : **02.00 P'M TO 05.00 PM**
Max. Marks : 100

N.B.

- 1) Attempt any **FOUR** questions from Section – I and any **TWO** questions from Section – II.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SAME** answer book.

SECTION – I

- Q.1** What is HTML? Explain any five Text formatting tags in HTML. (15)
- Q.2** Explain <FRAMESET> and <Frame> tag in detail with example. (15)
- Q.3** Explain canvas in HTML5 with example. (15)
- Q.4** Explain different dialog boxes in Java Script with example. (15)
- Q.5** Explain different events in Java Script with example. (15)
- Q.6** Explain following tags with example: (15)
<List>
<Textarea>

SECTION – II

- Q.7** Write a code for creating following external style sheet . (20)
i) Set hyperlink without underline
ii) Text having 18 font-size, italic and underline
iii) Set right margin 20 pixels
iv) Text color should be green
- Q.8** Design a form to accept reservation details of passengers. Validate any five fields using Java Script. (Assume suitable structure) (20)
- Q.10** Write a HTML code to design following table structure. (20)

| Name | Marks | | |
|------|-----------|------------|-------------|
| | Subject I | Subject II | Subject III |
| ABC | 70 | 75 | 80 |
| PQR | 65 | 78 | 90 |
| XYZ | 68 | 75 | 72 |

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SUBJECT : OBJECT ORIENTED ANALYSIS AND DESIGN

Day : **Saturday** Time : **02.00 PM TO 05.00 PM**
Date : **28/04/2018** **S-2018-1711** Max. Marks : 100

N. B. :

- 1) Solve **ANY FOUR** questions from Section – I.
- 2) Solve **ANY TWO** questions from Section – II.
- 3) Figures to the right indicate **FULL** marks.

SECTION - I

- Q. 1** What is Rational Unified Process (RUP)? Explain phases of RUP. (15)
- Q. 2** a) With the help of example explain various relationships between use-cases. (08)
- b) How to write use cases in inception, construction and elaboration? (07)
- Q. 3** What is Domain Modeling? Describe the UML diagrams used in Domain Modeling? (15)
- Q. 4** a) What is connection between responsibilities on GRASP and UML diagram? (08)
- b) Describe use case realization with GRASP patterns. (07)
- Q. 5** a) What is state diagram? What are basic symbols in state diagram? (08)
- b) Explain stereo types as UML extension mechanisms. (07)
- Q. 6** What is the role of sequence diagram in modeling? Explain system events and boundary with example. (15)
- Q. 7** Write short note on **ANY THREE** of the following: (15)
- a) Component diagram
 - b) Multiplicity
 - c) Agile modeling
 - d) CRC card
 - e) Package diagram

SECTION – II

- Q. 8** Draw use case diagram for Online Shopping. (20)
- Q. 9** Draw class diagram for Hostel Management System. (20)
- Q.10** Draw activity diagram for Order Management System. (20)

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B.C.A. SEM-V (2014 COURSE) CBCS : SUMMER - 2018
SUBJECT: C# PROGRAMMING

Day : **Wednesday**
Date : **02/05/2018**

Time : **02.00 PM TO 05.00 PM**
Max. Marks : 100.

S-2018-1712

N.B.:

- 1) Attempt any **FOUR** questions from Section-I and any **TWO** questions from Section-II.
- 2) Answers to both the sections should be written in **SEPARATE** answer books.
- 3) Figures to the **RIGHT** indicate full marks.

SECTION-I

- Q.1** Explain in detail the features of C# programming. (15)
- Q.2** Explain in detail the following C# methods : (15)
(a) Read () (b) ReadLine () (c) WriteLine ()
- Q.3** How to declare interfaces? Explain in detail the implementation of interfaces with suitable example. (15)
- Q.4** Explain in detail the various C# mechanisms to handle programming errors. (15)
- Q.5** Describe 'Constructor' and their types in brief. (15)
- Q.6** Explain in detail the following access modifiers with example: (15)
a) Public
b) Private
c) Protected
- Q.7** Write short notes on any **THREE** of the following: (15)
a) LINQ
b) Multicast delegates
c) 'Var' variable
d) 'static' Keyword.

SECTION-II

- Q.8** Write a C# program to demonstrate difference between sealed class and abstract class. (20)
- Q.9** Write C# program to transpose given matrix elements. Make necessary assumption for order of matrix. (20)
(Transpose operation: interchanging row values and column values.)
- Q.10** Write a C# program with use of methods to do the following: (20)
a) Accept a number from the user.
b) Count number of 1's in the input.
c) Find out the sum of odd position digits and even position digits separately.
d) Reverse of the number.
Hint: (8140216 ∴ No. of 1's is 2; 8 + 4 + 2 + 6 = 20 and 1 + 0 + 1 = 2; Reverse of input 8140216 is 6120418)

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Day: **Friday**
Date: **04/05/2018**

S-2018-1713

Time: **02.00 PM TO 05.00 PM**
Max. Marks: 100

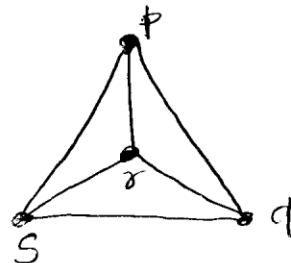
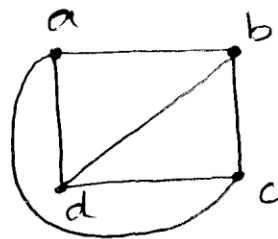
N.B.:

- 1) Attempt **ANY FOUR** from Section-I & **ANY TWO** from Section-II.
- 2) Use of non programmable scientific **CALCULATOR** is allowed.

SECTION – I

- Q.1** Three cards are drawn from a well shuffled pack of 52 playing cards. [15]
Find
i) the number of ways of drawing all the three cards as number cards.
ii) the number of ways of drawing 2 heart cards and 1 an ace card.
iii) the probability of getting all the three cards as picture cards.

- Q.2** State whether the following graphs are isomorphic with explanation. [15]



- Q.3** Two friends A and B appeared for an interview independently. Their chances of getting selection for the jobs are $\frac{3}{5}$ and $\frac{1}{5}$ respectively. Find the probability that [15]
i) both friends A and B are selected.
ii) only one of them is selected.
iii) none of them is selected.

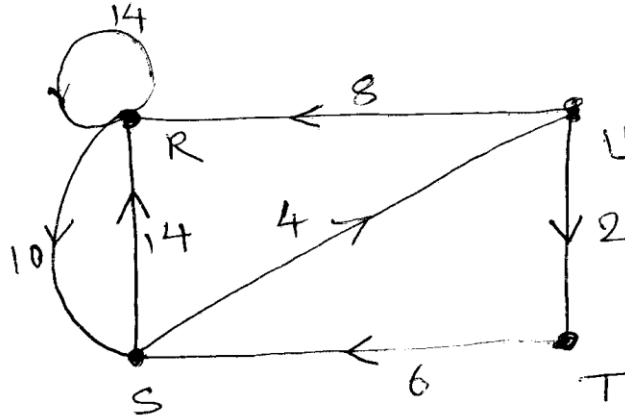
- Q.4** Two numbers from 1 to 3 are chosen at random with repetition allowed. If X denotes the sum of the numbers, then [15]
i) find the distribution of X.
ii) find the expectation of X.

- Q.5** Explain Hamiltonian and Eulerian graphs. Draw a graph [15]
a) which is Hamiltonian but non Eulerian .
b) which is Eulerian but non Hamiltonian.

- Q.6** Write short notes on: [15]
a) Sheep cabbage problem and its analysis by using graph.
b) Colouring of graphs .
c) Probability density function of continuous random variable.

SECTION - II

- Q.7** Write Warshall's algorithm to find the shortest path. Apply it to find the shortest path from T to R from the following graph. [20]



- Q.8 a)** An author has 4 typists typing the manuscript of his latest book. Typist A does 30% of typing, typist B does 25% of typing, typist C does 20% of typing and typist D does remaining typing work. Error occur on 5% of the pages typed by A, on 4% typed by B, on 3% typed by C and 2% typed by D. [10]
- A page is chosen at random and found to contain errors. What is the probability that it was typed by typist A?
- b)** Write a note on Cumulative Probability Function with suitable example. [10]
- Q.9 a)** Explain the following graphs with neat diagram [10]
- Multigraphs
 - Isomorphic graphs
 - Complete graphs
 - Planer graphs
 - Homographic graphs
- b)** There are 4 professors, 3 clerks and 6 students for forming a committee of 5 people. In how many ways can the committee be formed so that [10]
- there are at least 3 professors in the committee?
 - there are at most 2 clerks in the committee.

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