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SARDAR PATEL UNIVERSITY  
 BVOC-(SOFTWARE DEVELOPMENT)  
 4<sup>th</sup> SEMESTER (CBCS) EXAMINATION 2019  
 08<sup>th</sup> April 2019- Monday  
 (US04CBVS06) – OOP using JAVA

Time: 02:00 pm to 05:00 pm

Marks: 70

- |           |   |    |
|-----------|---|----|
| Q-1 A     | Define The Structure of Java Program.   | 7  |
| Q-1 B     | Explain any two Conditional Statement in Java   | 7  |
| <b>OR</b> |   |    |
| Q-1 A     | What is Java? Define features of Java   | 14 |
| Q-2 A     | Explain Super and Final Keyword with example  | 7  |
| Q-2 B     | Define is Constructor? What are its Special Properties  | 7  |
| <b>OR</b> |   |    |
| Q-2 A     | Discuss in detail Inheritance and <i>super</i> keyword with example   | 14 |
| Q-3 A     | What is exception? Explain Managing errors & exceptions and types of errors in detail.                      | 14 |
| <b>OR</b> |   |    |
| Q-3 A     | Define Managing I/O files and concept of streams, Character stream classes                                  | 14 |
| Q-4 A     | Define Following Components<br>1. Button, 2. Checkbox Group, 3. Choice, 4. Color, 5. TextArea               | 14 |
| <b>OR</b> |   |    |
| Q-4 A     | What is java applet? Give advantages of applet and architecture of Applet with life cycle method of applet. | 14 |
| Q-5       | Write Short Note (Any Two)  | 14 |
|           | 1. Looping Statement in Java  |    |
|           | 2. Method overloading and overriding  |    |
|           | 3. try and Catch statement  |    |
|           | 4. JDBC   |    |

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SARDAR PATEL UNIVERSITY  
BVOC-(SOFTWARE DEVELOPMENT)  
4<sup>th</sup> SEMESTER (CBCS) EXAMINATION 2019  
04<sup>th</sup> April 2019 THURSDAY  
(US04FBVS08) – Programming for the Web

Time: 02:00 pm to 05:00 pm

Marks: 70

Q-1 A What is CSS? Advantages of CSS. 7

Q-1 B Describe CSS Syntax ,CSS Id & Class in Detail 7

OR

Q-1 What is CSS? Explain CSS Styling Text, Styling Fonts, and Styling Links with syntax and example. 14

Q-2 What is JavaScript? Explain JavaScript Syntax and Operators in detail. 14

OR

Q-2 Explain Conditional Statement & Looping Statement in Java Script in detail 14

Q-3 What is Photoshop? List all tool box and explain any Five with properties 14

OR

Q-3 List selection tools and explain all in detail with example. 14

Q-4 What is CorelDraw? Tool box and explain any Five with properties 14

OR

Q-4 Explain CorelDraw Menu and window component in detail. 14

Q-5 Write Short Note (Any Two) 14

1. CSS Styling Tables
2. Java Script Mouse Events
3. Menu in Photoshop
4. CorelDraw



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No. of Printed Pages : 02

**SARDAR PATEL UNIVERSITY, VALLABH VIDYANAGAR**

**B.Voc. Software Development (4<sup>th</sup> Semester) External Examination**

**Wednesday, 3<sup>rd</sup> April 2019**

**Subject: US04FBVS06 (Operation Research)**

**Time: 02:00 to 05:00 p.m.**

**Total Marks: 70**

**Q.1** Explain the history, meaning, scope and applications of the operation research. [14]

**OR**

**Q.1** Explain applications, advantages and disadvantages of LPP with mathematical formula. [14]

**Q.2** Solve the following LP problems graphically [14]

(1) Max  $z = 3x_1 + 5x_2$   
 S.T  $x_1 + 2x_2 \leq 2000$   
 $x_1 + 2x_2 \leq 1500$   
 $x_2 \leq 600$   
 $x_1, x_2 \geq 0$

(2) Maximize  $Z = 30x_1 + 20x_2$   
 s.t.  $3x_1 + 3x_2 \geq 40$   
 $3x_1 + x_2 \geq 40$   
 $2x_1 + 5x_2 \geq 44$   
 $x_1, x_2 \geq 0$

**OR**

**Q.2** Solve the LPP problem using simplex method [14]

Max  $z = 18x_1 + 24x_2$   
 s.t.  $4x_1 + 2x_2 \leq 8$   
 $2x_1 + 5x_2 \leq 12$   
 $x_1, x_2 \geq 0$



**Q.3** Determine an IBFS by Vogel's Approximation method, LCM, NWCM Method [14]

| Source        | D1       | D2       | D3       | D4        | Supply |
|---------------|----------|----------|----------|-----------|--------|
| S1            | 19       | 30       | 50       | 10        | 7      |
| S2            | 70       | 30       | 40       | 60        | 9      |
| S3            | 40       | 8        | 70       | 20        | 18     |
| <b>Demand</b> | <b>5</b> | <b>8</b> | <b>7</b> | <b>14</b> |        |

**OR**

**Q.3** A departmental has five employees with five jobs to be performed. The time ( in hours) each men will take to perform each job is given in the effectiveness matrix. [14]

How should the jobs be allocated, one per employee, so as to minimize the total man-hours.

| jobs | Employees |    |    |    |    |
|------|-----------|----|----|----|----|
|      | 1         | 2  | 3  | 4  | 5  |
| a    | 10        | 5  | 13 | 15 | 16 |
| b    | 3         | 9  | 18 | 13 | 6  |
| c    | 10        | 7  | 2  | 2  | 2  |
| d    | 7         | 11 | 9  | 7  | 12 |
| e    | 7         | 9  | 10 | 4  | 12 |

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(P.T.O.)

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SEAT No. \_\_\_\_\_

# SARDAR PATEL UNIVERSITY

No. of Printed Pages : 01

Bachelor of Vocation (Software Development)

Semester: IV

Friday

Date 05/04/2019

Time: 2:00 PM TO 5:00PM

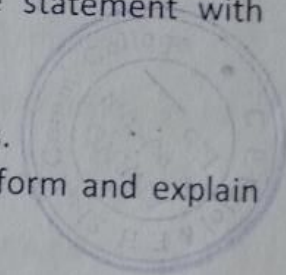
Subject/Course Code:

Subject Title: PHP

|   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|
| U | S | 0 | 4 | C | B | V | S | 0 | 5 |
|---|---|---|---|---|---|---|---|---|---|

Total Marks: 70

- Q:1 What is PHP? Explain history and advantages of PHP. 14
- OR
- Q-1 What is operator? List out all operators of PHP and explain all with example. 14
- Q:2[A] What is data type? List and explain data types supported in PHP. 7
- Q:2[B] What is an array? Explain types of PHP array. 7
- OR
- Q:2[A] Define loop. Explain while loop and for loop of PHP in brief with Example. 7
- Q:2[B] Define conditional statement. Explain if else statement with Example. 7
- Q:3[A] What is cookie? Explain various types of cookies. 7
- Q:3[B] What is a form? List out various elements of form and explain any two with syntax. 7
- OR
- Q:3[A] Give the difference between session and cookie. 7
- Q:3[B] Explain PHP isset() function with example. 7
- Q:4[A] Explain insert, update and delete operations of MySQL in PHP with proper code. 14
- OR
- Q:4[A] What is database? List and explain different data types used in MYSQL. 14
- Q:5[A] Attempt Any Two. 14
- i) Write a general structure of PHP.
  - ii) Explain ceil () and floor () functions with syntax and example.
  - iii) Write a difference between GET & POST.
  - iv) Write a connection code for PHP with MySQL.



Q.4 A project has the following time Schedule. Construct a PERT network and compute Critical Path and its duration. Also calculate Total float, Free float. [14]

|               |     |     |     |     |      |      |     |
|---------------|-----|-----|-----|-----|------|------|-----|
| Activity      | 1-2 | 1-3 | 2-4 | 3-4 | 3-5  | 4-9  | 5-6 |
| Time in Weeks | 4   | 1   | 1   | 1   | 6    | 5    | 4   |
| Activity      | 5-7 | 6-8 | 7-8 | 8-9 | 8-10 | 9-10 |     |
| Time in Weeks | 8   | 1   | 2   | 1   | 8    | 7    |     |

OR

Q.4 A project schedule has the following characteristics. Construct the PERT network and find the critical path and time duration of the project. Also calculate Total float, Free float [14]

|          |       |       |       |       |       |       |       |       |       |       |       |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Activity | 1 - 2 | 1 - 4 | 1 - 7 | 2 - 3 | 3 - 6 | 4 - 5 | 4 - 8 | 5 - 6 | 6 - 9 | 7 - 8 | 8 - 9 |
| Time     | 2     | 2     | 1     | 4     | 1     | 5     | 8     | 4     | 3     | 3     | 5     |

Q.5 Write a note on following (Any Two) [14]

- (1) Rules for Network Constructions
- (2) Write down steps for find out assignment problem using Hungarian method.
- (3) Write down steps for find out transportation problem using LCM & NWCM method.
- (4) Explain advantages and disadvantages of Operation Research.

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SD 2019  
No of Printed Pages: 021  
Sem 4

SARDAR PATEL UNIVERSITY  
BVOC-(SOFTWARE DEVELOPMENT)  
4<sup>th</sup> SEMESTER (CBCS) EXAMINATION 2019  
2<sup>nd</sup> April 2019  
(US04FBVS05) –Fundamentals of Operating System

Time: 02:00 am to 05:00 pm

Marks: 70

- Q-1 A Explain functions of Operating System in detail? 7
- Q-1 B Explain Round Robin scheduling Algorithm in brief 7
- OR
- Q-1 A Define Operating System. Explain Any Two Type Operating System 14
- Q-2 Define FIFO page replacement algorithm with advantages and disadvantages? 14
- OR
- Q-2 What is Paging? Explain Demand Paging. 14
- Q-3 A What is LINUX? Explain basic History and features of LINUX operating system 14
- OR
- Q-3 A What do you mean by Deadlock? Explain all necessary condition for occurrence of deadlock. 7
- Q-3 B Define Concept of Process Synchronization in detail 7
- Q-4 A Define various modes of vi editor. Explain commands of exit mode of vi editor 14
- OR
- Q-4 A Explain pwd mkdir & rmdir command with examples 7
- Q-4 B Explain if and case statement in Linux 7
- Q-5 Write Short Note (Any two) 14
- Time sharing Operating System
- Memory Management
- Cooperating process
- Basic Linux Command (Any Five)



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