



# Silver Oak College of Engineering & Technology

## Department of Examinations

Exam Completed - Question Papers

**Mid Semester Exam (Winter-2014 Session)**

**Branch: Information Technology**

**Semester: V**

A/Prof. Satvik Khara

H.O.D (IT)

A/Prof. Satvik Khara

GTU COORDINATOR

**SILVER OAK COLLEGE OF ENGINEERING & TECHNOLOGY****B.E. Semester- V - MID SEMESTER EXAMINATION (Winter'14 Session)****SUBJECT: E-Commerce & E-Business****Date: 14-10-2014****TIME: 2:00 P.M. to 3:15 P.M****Total Marks: 30**

- 
- Instructions:**
1. Attempt all questions.
  2. Make suitable assumptions wherever necessary.
  3. Figures to the right indicate full marks.
- Q.1 (a) Explain Categories of E-Commerce. 05
- (b) What question must be answered while creating innovative E-business Design? 05
- Q.2 (a) Explain Basic of ERP Process. 05
- Write Short Note :
- (b) 1) Pre-Order 05
- 2) Post Order
- OR*
- Q.2 (a) Draw and Explain Process View of the Supply Chain Management. 05
- (b) Explain three phase of CRM. 05
- Q.3 (a) Write Short Note:
- 1) Click & Brick Process
- 2) E-Portal
- (b) Explain Ethical issues related to Electronic commerce
- OR*
- Q.3 (a) What is online Auction? Advantage of Online Auction. 05
- (b) What is EDI? How does it work 05

\*\*\*\*\*

**SILVER OAK COLLEGE OF ENGINEERING & TECHNOLOGY****B.E. Semester- (V) - MID SEMESTER EXAMINATION (Winter'14 Session)****SUBJECT: Object Oriented Programming with Java (150704)****Date: 15/10/2014****TIME: 2:00 P.M. to 3:15 P.M****Total Marks: 30**

**Instructions:** 1. Attempt all questions.  
 2. Make suitable assumptions wherever necessary.  
 3. Figures to the right indicate full marks.

- Q.1 (a) List and explain various features of java. 06  
 (b) Differentiate Method Overloading and Method Overriding with example. 04

- Q.2 (a) Explain Package with example. 06  
 (b) Define: Super and this. (with example) 04

*OR*

- Q.2 (a) Explain Interface with example. 06  
 (b) Dynamic Method Dispatch. 04

- Q.3 (a) What is multithreading? Why it is required? Draw and explain life cycle of thread. 05  
 (b) Write a program to generate a `ArrayIndexOutOfBoundsException`, catches the exception, and displays an error message. 05

*OR*

- Q.3 (a) Write a program that executes two threads using `Runnable` interface. One thread display "A" after every 1 sec. Second thread display "B" after every 3 sec. 05  
 (b) What is Exception? Give some of Built-in exceptions in java. Also give difference between `throw` and `throws`. 05

**SILVER OAK COLLEGE OF ENGINEERING & TECHNOLOGY****B.E. Semester- V – REMEDIAL MID SEMESTER EXAMINATION (Winter'14 Session)****SUBJECT: COMPUTER NETWORKS (150702)****Date: 06-11-2014****TIME: 11:00 P.M. to 12:15 P.M****Total Marks: 30****Instructions: 1. Attempt all questions.****2. Make suitable assumptions wherever necessary.****3. Figures to the right indicate full marks.**

- Q.1 (a) Differentiate between Mesh and Ring Topology. Suppose if you want to connect 5 computers with the help of mesh and ring topology, how many links and ports in each computer will be required? 05
- (b) Explain OSI model in detail. 05
- Q.2 (a) Discuss different types of Guided media in detail. 05
- (b) Explain the working principle of CSMA. 05
- OR*
- Q.2 (a) Explain Hamming Code. 05  
Obtain the Hamming code for the given Data – 10101 with odd parity.
- (b) Write a short note on Repeater, Switch and Router. 05
- Q.3 (a) Explain Leaky Bucket Algorithm 03
- (b) Explain any one framing method in detail. 02
- (c) Explain Routing. Also explain Shortest Path/Dijkstra Routing algorithm with example. 05
- OR*
- Q.3 (a) Explain sliding window protocol using Go – Back – N. 03
- (b) Generate CRC for Frame – 1101011011 having Generator – 10011. What will be the CRC on sender side? 02
- (c) Suppose you have Network Address – 165.100.0.0 05  
No. of needed Usable subnets – 1000  
No. of needed Usable hosts – 60  
Find out Address class, Default subnet mask, Custom subnet mask, total number of subnet masks.  
1) What is the 14<sup>th</sup> usable subnet range?  
2) What is the subnet broadcast address for 5<sup>th</sup> usable net?

**SILVER OAK COLLEGE OF ENGINEERING & TECHNOLOGY****B.E. Semester- (V) - MID SEMESTER EXAMINATION (winter'14 Session)****SUBJECT: Applied Electronics (151006)**

DATE: 16/10/2014

TIME: 02:00pm to 03:15pm

Total Marks: 30

- Instructions:** 1. Attempt all questions.  
2. Make suitable assumptions wherever necessary.  
3. Figures to the right indicate full marks.

- Q1** (A) Define all the characteristics of ideal op-amp. **5**
- (B) Draw and Explain the working of SMPS with required block diagram circuits and wave forms. **5**
- Q2** (A) Design a square wave generator at 1KHz using 555 timer IC. **6**
- (B) Do as directed: **4**
- (i) Solve using K map-  $f = \sum m(0,2,6,10,11,12,13) + d(3,4,5,14,15)$
- (ii) Prove  $AB + AB'C + BC' = AC + BC'$
- OR**
- Q2** (A) An op-Amp is used in inverting mode with  $R_1 = 2K\Omega$ ,  $R_F = 30K\Omega$ ,  $V_{cc} = \pm 15V$ . Calculate the output voltage for the given inputs: 1)  $V_{in} = 50mV$  2)  $V_{in} = 5V$ . **5**
- (B) Explain working of Linear variable differential transformer in detail. **5**
- Q3** (A) Write a short note on edge triggered toggle flip flop. **5**
- (B) What are the advantages of close loop configuration? Derive expression of close loop gain for Non-inverting configuration of Op-Amp. **5**
- OR**
- Q3** (A) Draw the Architecture of 8051. **6**
- (B) Compare LED and LCD **4**

**SILVER OAK COLLEGE OF ENGINEERING & TECHNOLOGY**  
**B.E. Semester-V (IT) - MID SEMESTER EXAMINATION (winter' 14 Session)**  
**SUBJECT: Computer Oriented Statistical Methods (151601)**

Date: 10/10/2014

TIME: 2:00 pm TO 03:15 pm

Total Marks: 30

- Instructions:**
1. Attempt all questions.
  2. Make suitable assumptions wherever necessary.
  3. Figures to the right indicate full marks.

Q.1 (a) Solve the non linear equations  $x^2 - y^2 + 7 = 0$  and  $x - xy + 9 = 0$  using Newton Raphson method. Take  $x_0 = 3.5$  and  $y_0 = 4.5$ . 03

(b) Evaluate using Gauss quadrature formula  $\int_{-1}^1 \cos x dx$ . 03

(c) (I) If  $u = 2v^6 - 5v$ , find the percentage error in  $u$  at  $v=1$  if error in  $v$  is 0.05. 02

(II) Write an algorithm for Simpson's 3/8 rules to integrate a tabulated function. 02

Q.2 (a) Evaluate:  $\int_0^6 \frac{dx}{1+x^2}$  by (i) Trapezoidal Rule, (ii) Simpson's 1/3 rule. 05

(b) Find all roots of the equation  $x^3 - 2x^2 - 5x + 6 = 0$  using Graeffe's root method by squaring thrice. 05

OR

Q.2 (a) A train is moving at the speed of 30 m/sec. suddenly brakes are applied. The speed of the train per second after  $t$  seconds is given by the following table. 05

Time (t):	0	5	10	15	20	25	30
Speed (v):	30	24	19	16	13	11	10

Apply Simpson's 3/8 rule to determine the distance moved by the train in 30 seconds.

(b) Solve  $x^3 - 5x^2 - 2x + 24 = 0$  using Lin- Bairstow method. 05

Q.3 (a) Compute the coefficient of kurtosis and coefficient of skewness for the following data: 05

Class	0-4	5-9	10-14	15-19	20-24
Freq	2	3	3	1	1

(b) From the following data, calculate two lines of regression; 05

X	16	20	17	21	15
Y	50	60	58	60	55

Estimate value of Y when X = 25.

OR

(a) The competitors in a beauty contest are ranked by three judges in the following order: Use Spearman's rank correlation coefficient to discuss which pair of judges has nearest approach to beauty: 05

1st judge	1	5	4	8	9	6	10	7	3	2
2nd judge	4	8	7	6	5	9	10	3	2	1
3rd judge	6	7	8	1	5	10	9	2	3	4

(b) Calculate 5-yearly moving averages of the number of students passing from a Engineering College. 05

Year	Number of students.	Year	Number of students.
2003	332	2008	405
2004	317	2009	410
2005	357	2010	427
2006	392	2011	405
2007	402	2012	438

\*\*\*\*\*

**SILVER OAK COLLEGE OF ENGINEERING & TECHNOLOGY****B.E. Semester- V - MID SEMESTER EXAMINATION (Winter'14 Session)****SUBJECT: Management II (150001)****Date: 09/10/2014****TIME: 2:00 pm to 3:15 pm****Total Marks: 30****Instructions: 1. Attempt all questions.****2. Make suitable assumptions wherever necessary.****3. Figures to the right indicate full marks.**

- Q.1 (a) Define Marketing and discuss the role of 4Ps in formulating marketing strategies. 05
- (b) Discuss the importance of Human Resource Management 05
- Q.2 (a) Explain the factors affecting the plant location planning 05
- (b) What is Selection? Explain the selection process. 05
- OR*
- Q.2 (a) Distinguish between Process Layout and Product Layout. 05
- (b) XYZ Co. Ltd, producing a pen, which selling price is Rs 18 per unit has a fixed cost of Rs 75,000 and variable cost is Rs. 8 per unit. Calculate Break Even Point (BEP). 05
- Q.3 (a) Discuss any two demand forecasting methods. 05
- (b) What are the sources of recruitment? Mention their advantages and disadvantages. 05
- OR*
- Q.3 (a) Explain various marketing concepts in detail. 05
- (b) Write a short note on types of tests. 05

\*\*\*\*\*