

Bachelor of Computer Applications Examination: October 2014

Semester – III OLD COURSE (REPEATER)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Thursday 09/10/2014	III (Old Course) (REPEATER)	Modern Algebra & Logic	11. 00 AM to 01. 30 PM	3002	75

Note: Question No. 1 is compulsory.
Attempt any four questions from Q.2 to Q.7

- Q1.** A) Define Semi group, Monoid. Check whether the following set $(Z, *)$ is Monoid w.r.t Operation $*$ defined $a*b=a+b-1$ for set of Integers. 05
 B) Define Field and Integral domain. Prove that every field is an integral domain. 05
 C) Define Tautology & Contradiction & check the statements $(\sim p \vee q) \wedge \sim (\sim p \vee q)$ is Tautology or Contradiction or not both. 05
- Q2.** A) State & Prove Lagrange's theorem. 07
 B) Define Sub ring. Show that intersection of two sub ring is again sub ring. What about union? 08
- Q3.** A) State & prove necessary & sufficient condition for non empty subset H to a subgroup of group G. 07
 B) If R is a ring such that $a^2 = a \forall a \in R$ then prove that 08
 a) $a+a = 0$ for every a in R
 b) $a+b = 0 \Rightarrow a=b$
 c) R is a commutative ring
- Q4.** A) Define Homomorphism in Ring R. Prove that if f is a homomorphism of a ring R into a ring R' then 07
 1) $f(0) = 0'$ 2) $f(-a) = -f(a)$ for every a in R
 B) Define Right ideal and Left ideal. Prove that $S=\{x \in R / ax=0\}$ where R is a ring and $a \in R$ is a right ideal of R. 08
- Q5.** A) Define Logical equivalence Check whether the statements are logically equivalent or not $p \rightarrow (q \wedge r)$ and $(p \rightarrow q) \wedge (q \rightarrow r)$ 08
 B) Express the following statements symbolically. 07
 Let p: He is Rich and q: He is Happy
 1) He is Rich or Happy
 2) If he is Rich then he is not Happy

Bachelor of Computer Applications Examination: October 2014

Semester – III OLD COURSE (REPEATER)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Monday 13/10/2014	III (Old Course) (REPEATER)	Structure System Analysis and Design	11. 00 AM to 01. 30 PM	3004	75

Note: Question No. 1 is compulsory.
Attempt any four questions from Q.2 to Q.7
Draw figures whenever necessary

-
- Q.1 a)** What is System? Explain characteristics of System. **07**
- b)** Explain Technical and Interpersonal skills to be a good System Analyst. **08**
- Q.2 Write short notes on:** **15**
- a) Advantages of Prototype
 - b) Post implementation review
 - c) Role of user in requirement analysis
- Q.3** Explain system development life cycle with all its phases. **15**
- Q.4** Explain the step in feasibility analysis. **15**
- Q.5** Explain different Fact finding techniques. **15**
- Q6. a)** Draw context level DFD for Hospital Management System. **05**
- b)** Design Input form for college Marksheet. **05**
- c)** Design Output form for Driving License. **05**
- Q7.** Draw Decision table and Decision tree for following problem statement. **15**
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- If Customer is *Bookstore* then 25% discount, if Customer is *College* then 20% discount,
- If Customer is *Senior citizen* then 10% discount and for *Others* 5% discount.



Bachelor of Computer Applications Examination: October 2014
Semester – III (Repeater)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Saturday 11/10/2014	III (Repeater)	Introduction to Microprocessor	11. 00 AM to 01. 30 PM	3003	75

Note: Question No. 1 is compulsory.
Attempt any four questions from Q.2 to Q.7

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- Q.1** Draw and Explain the architecture of 8085 MPU. **[15M]**
- Q.2 a)** Explain various addressing modes of 8085 with suitable example. **[10M]**
- b)** Distinguish between 8085 and 8086 microprocessor. **[05M]**
- Q.3 a)** Write a Program in assembly language that subtracts two 8 bit numbers, **[07M]**
stored at memory location C010 H and C011 H. Store the result at location
C012 H and also display result at port 00 H.
- b)** Explain Interrupts. Explain types of Interrupts with suitable example **[08M]**
- Q.4 a)** Explain Instruction set and its classification with example. **[10M]**
- b)** What is Memory Packaging? Explain in brief types of memory packaging. **[05M]**
- Q.5 a)** Explain the block diagram of the 8259A. **[07M]**
- b)** Explain functionality of Following pins (any 4) **[08M]**
1. T x RDY of 8251
 2. ALE of 8085
 3. READY of 8085
 4. HOLD of 8085
 5. SYNDT/BRKDET of 8251
 6. \overline{CS} of 8259

Bachelor of Management Studies Examination: October 2014
Semester – III (Old Course) (Repeater)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Tuesday 21/10/2014	III (Repeater)	Business Correspondence	11.00 AM to 01.00 PM	3004	--

Note: Question No. 1 is compulsory.
Answer any five from the following
All questions carry equal marks.

- Q.1 Explain the following Concepts. 10**
- a) Full black form
 - b) Testimonials
 - c) Solicited enquiry letters
 - d) Agenda
 - e) N.O.M.A letter form
- Q.2 Write a letter to Mr. Joshi requesting him to be referee for your future job opportunity. 10**
- Q.3 Write a letter of enquiry for the purchase of new cycles for your cycle shop. 10**
- Q.4 What are the different adjustment policies? Which policy would you line to adopt and why? 10**
- Q.5 Draft a sales letter to promote the sales of a :- fairness cream. 10**
- Q.6 Explain the terms Notice of meeting Agenda and Resolution. 10**
- Q.7 Write a tactful credit letter asking for trade references. 10**



Bachelor of Computer Applications Examination: October 2014

Semester – III (REPEATER-OLD COURSE)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Saturday 18/10/2014	III (Repeater)	Database Management System-I	11.00 AM To 01.00 PM	3007	50

**Note: Question No. 1 is compulsory
Attempt any Four questions from Q. No 2 to Q. No. 7**

-
- Q1. Explain the following terms** **10**
- a. Normalization
 - b. Commit
 - b. Super Key
 - c. Cardinality Ratio
 - e. Transaction Control Commands
- Q2. Write short notes on** **10**
- a. Entity and its types
 - b. Specialized users
- Q3. a) State advantages and disadvantages of DBMS** **5**
- b) Explain 3 main objectives to be considered while designing secure database application** **5**
- Q4. a) What is Relational data Model? Differentiate between Hierarchical and Network data model?** **7**
- b) Explain below given 2 steps of database design.** **3**
- 1. Schema
 - 2. Security
- Q5. a) What is DBA? Explain its functions.** **5**
- b) What is View? Explain its advantages with example?** **5**
- Q6. a. Define attribute. Explain types of attributes.** **5**
- b. Explain storage manager component of DBMS.** **5**
- Q7. Construct an E-R diagram for Air-Line database. The Air-Line database contains information about passengers, Flights, Departure information, Employees of the airline and**

Bachelor of Computer Applications Examination: October 2014

Semester – III OLD COURSE (REPEATER)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Tuesday 07/10/2014	III (Old Course) (REPEATER)	Technical Writing	11. 00 AM to 01. 30 PM	3001	75

Note: Question No. 1 is compulsory.
Attempt any four questions from Q.2 to Q.7

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- Q.1** Write a structure of an essay & write an essay of around 500 words on 'Youth Responsibility'. **15**
- Q.2 a)** Write the guidelines for effective Technical Summary. **07**
- b)** Discuss the process of Technical Writing. **08**
- Q.3 a)** Define Research. Discuss the general format of a research paper in brief. **08**
- b)** Short note on – Troubleshooting Guide **07**
- Q.4** Write a detailed note on factors to be considered before making a presentation. Also state the different types of visual aids that can be used for making presentation. **15**
- Q.5** Explain User Manual with Example. **15**
- Q.6.** What is meant by Software Project Documentation? Discuss the various stages in the process of software documentation. **15**
- Q.7.** Define Technical Proposal. Discuss the structure to be followed while drafting a technical proposal in detail. **15**



Bachelor of Computer Applications Examination: October 2014
Semester – III (Repeater) (Old Course)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Wednesday 22/10/2014	III (REPEATER)	Visual Programming	11.00 AM to 01.00 PM	3005	50

Instructions:

1. Question No 1 is compulsory.
2. Attempt any Four question from question No 2 to question No 8
3. Give example whenever necessary
2. Figure to right indicate marks.

Q. No 1 Answer the following Questions in brief: [10]

1. String Variable
2. Collection
3. Checkbox
4. While Loop
5. Break Point

Q. No 2 a. Declare an array of elements. Store the monthname using loop. Display the contents. [5]

b. Explain Variable. **Declaring Variables**, Explicit Declarations, Variable naming conventions, Implicit Declarations [5]

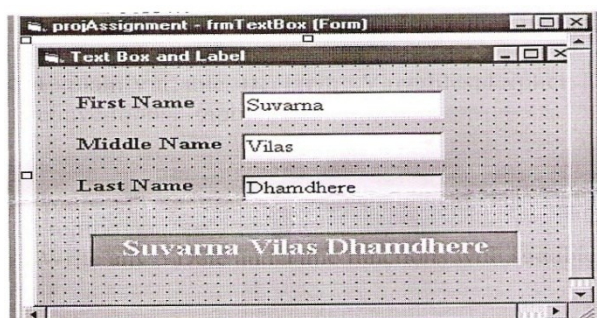
Q. No 3 a. Write a program to accept 100 numbers through input box and add only numbers in a Combox which are devisable by 5. [5]

b. Write any 5 Date and Time functions with suitable example [5]

Q. No 4 a. Differentiate between [5]

1. Textbox and label
2. Radio button and Checkbox

b. Create form as follows. Enter you own values in Text Box. Display all three values as shown below. [5]



Bachelor of Computer Applications Examination: October 2014
Semester – III (Fresh)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Monday 13/10/2014	III (Fresh)	Numerical Methods and Algorithms	11. 00 AM to 01. 30 PM	3102	75

Note: Question No. 1 is compulsory.
Attempt any four questions from Q.2 to Q.8
Use of non-programmable calculator is allowed

Q.1 a) Evaluate: **08**

1) $\Delta^3(5e^x)$

2) $\frac{\Delta^2 x^3}{Ex^3}$

3) $(\frac{\Delta^2}{E})e^x$

b) Solve the following system of equations using Matrix Inversion method. **07**

$$3x + 2y + 4z = 7$$

$$2x + y + z = 7$$

$$x + 3y + 5z = 2$$

Q.2 a) Estimate the missing term: **07**

x	1	2	3	4	5
$f(x)$	7	--	13	21	37

b) Using Euler's method find the approximate value of y for x = 0.14 given **08**

$$\frac{dy}{dx} = x - y^2 \quad y(0) = 1 \quad h = 0.02$$

Q.3 a) Derive Trapezoidal Rule. **08**

b) Evaluate $\int_0^6 \frac{1}{1+x^2} dx$ using Simpson's (1/3)rd Rule. **07**

Bachelor of Computer Applications Examination: October 2014
Semester – III (Fresh)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Friday 17/10/2014	III (Fresh)	Computer Organization and Architecture	11. 00 AM to 01. 30 PM	3103	75

Note: Question No. 1 is compulsory.
Attempt any four questions from Q.2 to Q.7

-
- Q.1 a)** Draw and explain Instruction Cycle State Diagram. **08**
- b)** Describe traditional Bus Architecture. **07**
- Q.2 a)** Write short note on Memory Hierarchy. **07**
- b)** Differentiate between RAM and ROM. **08**
- Q.3 a)** Explain Cache Read operation with flowchart. **08**
- b)** Write short note on Write Policies in Cache. **07**
- Q.4 a)** How data is organized in Magnetic Disk. **08**
- b)** Describe characteristics of Disk System. **07**
- Q.5 a)** Draw generic model of an I/O module and explain it. **08**
- b)** Explain different design issues for interrupt driven I/O. **07**
- Q6. a)** Write short note on Evolution of I/O function. **08**
- b)** What is RISC and give characteristics of RISC. **07**
- Q7. a)** Compare CISC v/s RISC. **08**
- b)** Explain DMA function with flowchart and block diagram. **07**



Bachelor of Computer Applications Examination: October 2014
Semester – III (Fresh)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Saturday 18/10/2014	III (Fresh)	File Structure & Database Management System	11.00 AM To 01.30 PM	3104	75

Note: 1) Q. 1 is compulsory.
 2) Solve any four from Q.2 to Q.8

Q.1 A) Explain ACID Properties of Transaction **08**

B) What is Query? Explain steps of query processing **07**

Q.2 A) What is Indexing? Explain primary index with suitable example. **08**

B) Explain lost update problem and Temporary update problem with example. **07**

Q.3 A) Consider the following Transaction **08**

T1
 read-item (X);
 X=X-N;
 write-item (X);
 read-item (Y);
 Y=Y+N;
 write-item (Y);

T2
 read-item (X);
 X=X+M;
 Write-item (X);

1) Find out a non serial schedule which is serializable to serial schedule <T1, T2>

1) Find out a non serial schedule which is not serializable to serial schedule <T1, T2>

B) Explain materialization and pipelining. **07**

Q.4 A) Consider the following Transaction **07**

T1
 Read-item (x);
 Read-item (Y);
 Y=Y+1;
 Write-item (Y);

T2
 Read-item (Y);
 Read-item (X);
 X=X+1;
 Write-item (X);

Apply lock and unlock so it follow 2PL, check deadlock occur in it or not.

B) Explain serial, Non serial and conflict serial schedule with example. **08**

Bachelor of Computer Applications Examination: October 2014
Semester – IV (Repeater)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Saturday 11/10/2014	IV (Repeater)	Environmental Science & RTI	02. 30 PM to 05. 00 PM	4003	75

Note: Question No. 1 is compulsory.
Attempt any four questions from Q.2 to Q.7

Q.1 Write short notes (any 3) [15M]

- a) Importance of Environmental studies
- b) Role of Individuals in prevention of pollution.
- c) Food chain, food webs and ecological pyramids
- d) Ozon Layer Depletion
- e) Effects of Noise pollution

Q.2 Write a note on Definition, causes, effects and prevention measures of air pollution. [15M]

Q.3 Write in details:

- a) Benefits of Green IT. [08M]
- b) Prevention measures of Water pollution [07M]

Q.4 Explain in details :

- a) Forest Ecosystem [7.5M]
- b) Aquatic Ecosystem [7.5M]

Q.5 Explain in details :

- a) Energy as a natural resource. [08M]
- b) Earthquakes and mitigation measures [07M]

P.T.O.

Bachelor of Computer Applications Examination: October 2014
Semester – IV (Repeater)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Wednesday 22/10/2014	IV (Repeater)	Data & File Structures	02.30 PM to 05.00 PM	4004	75

Instruction:

- Attempt TOTAL FIVE questions
- Question No. 1 is compulsory
- Attempt ANY FOUR from Question No. 2 to Question No. 8
- All Questions carry EQUAL marks
- Figures in the RIGHT indicate FULL MARKS

-
- Q-1)** Explain ANY FIVE of the following: **15**
- i) ADT **3**
 - ii) Memory representation of link list **3**
 - iii) Sequential search **3**
 - iv) Threaded Binary Tree **3**
 - v) Digraph **3**
 - vi) Fixed length record **3**
- Q-2)** Attempt the following: **15**
- i) Write algorithms for PUSH and POP an element on stack. Explain with example. **8**
 - ii) Explain Hashing with proper example. Explain various Hash functions. **7**
- Q-3)** Attempt the following: **15**
- i) Write an algorithm to convert infix expression to its equivalent postfix expression. **8**
 Convert the following expression in postfix
 $(A + B) * D + E / (F + A * D) + C$
 - ii) Define preorder, inorder and postorder traversal. Write an algorithm for preorder traversal. **7**
- Q-4)** Attempt the following: **15**
- i) Define priority queue and deque with diagram. **5**

Bachelor of Computer Applications Examination: October 2014
Semester – IV (Repeater)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Tuesday 07/10/2014	IV (Repeater)	Data Communication and networking	02. 30 PM to 05. 00 PM	4001	75

Note: Question No. 1 is compulsory.
Attempt any four questions from Q.2 to Q.8

-
- Q.1 a)** Explain Data Communication Model with diagram. **07**
- b)** Explain Analog and Digital Signal with diagram. **08**
- Q.2 a)** Explain Guided transmission Media. **08**
- b)** Explain Fiber Optic Cable with diagram. **07**
- Q.3 a)** Explain Multiplexing. **07**
- b)** Give short note on Circuit Switching. **08**
- Q.4 a)** Explain – Modulation, Channel Bandwidth, Transmission impairments. **08**
- b)** Explain Message Switching. **07**
- Q.5 a)** Explain Router and Routing. **08**
- b)** Give short note on Local Area Network (LAN). **07**
- Q6. a)** Explain Star Technology with its advantages and disadvantages. **07**
- b)** Explain the concept Metropolitan Area Network (MAN). **08**
- Q7. a)** Explain concept Flow Control and Error Control. **07**
- b)** Explain TCP/IP reference model with Diagram **08**
- Q8. a)** Write a short note on Framing and types of Framing. **07**
- b)** What is ALOHA? Explain its two Versions. **08**



Bachelor of Computer Applications Examination: October 2014

Semester – IV (REPEATER)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Monday 20/10/2014	IV (Repeater)	Database Management System – II	02.30 PM to 05.00 PM	4007	75

Note: Q. 1 is compulsory
Attempt any Four questions from Q.2 - Q.8

-
- Q-1 a]** Explain Deadlock detection and Recovery Technique **10M**
b] Write Short note on B⁺ Trees **5M**
- Q-2 a]** Explain steps in Query Processing **10M**
b] What is the difference between materialization and pipelining? **10M**
- Q-3 a]** With proper state transition diagram, explain different state of transition **5M**
b] What is schedule? Define the concept of serial, recoverable and cascadeless schedule. **10M**
- Q-4 a]** Explain Transaction, software & Hardware failure that may occur in system. **10M**
b] Explain types of Locks (shared and Exclusive) with compatibility matrix. **5M**
- Q-5 a]** Define the following term. **10M**
1. Primary Key
 2. Secondary Key
 3. Leaf Node
 4. Bucket
 5. Spare Index
- b]** Explain cluster Index with diagram. **5M**
- Q-6 a]** Write Short Note on Dirty Read problem & Last update problem. **10M**

Bachelor of Computer Applications Examination: October 2014
Semester – IV (Repeater)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Thursday 07/10/2014	IV (Repeater)	Linear Algebra & Boolean Algebra	02. 30 PM to 05. 00 PM	4002	75

Note: Question No. 1 is compulsory.
Attempt any 4 from Q2 to Q7
Each question carries 15 Marks.

Q 1 a) State & prove necessary & sufficient condition for a non empty subset of vector space is to subspace of V **(7M)**

b) Let $(B, +, *, ', 0, 1)$ is a Boolean Algebra then prove that **(8M)**

i) $x * x = x$

ii) $x.(x + y) = x$

iii) $x * 0 = 0$

iv) $0' = 1$

Q 2 a) Define basis check whether $V_1=(1,2,1)$ $V_2=(2,9,0)$, $V_3=(3,3,4)$ forms a basis for R^3 or not **(7M)**

b) Find Eigen Values for.

$$A = \begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$$

Can you find Diagnosable operator for A Justify? **(8M)**

Q 3 a) Define Linear Transformation. Show that ker T is Linear transformation. **(7M)**

b) State Cayley Hamilton Theorm. Verify the theorem for **(8M)**

$$A = \begin{bmatrix} 1 & -3 & 3 \\ 3 & -5 & 3 \\ 6 & -6 & 4 \end{bmatrix}$$

Q 4 a) Define Distributive Lattice. Prove that if an element in distributive Lattice L has complements then complement is Unique. **(7M)**

Bachelor of Computer Applications Examination: October 2014
Semester – IV (REPEATER)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Saturday 18/10/2014	IV (Repeater)	Object Oriented Programming Using	02.30 PM to 04.30 PM	4005	50

Note: Question No. 1 is compulsory
Solve any 4 from the remaining questions.
Figures to the right indicate full marks.

- Q.1** Answer the following questions in brief: **10**
- a) Explain reference variable.
 - b) What is enumerated datatype?
 - c) What is a manipulator? Give an example.
 - d) General form of class specification.
 - e) What is an iterator?
- Q.2 a)** Explain scope resolution operator with example. **05**
- b)** Write a c++ program that illustrates the application of multiple catch statements. **05**
- Q.3 a)** Explain Polymorphism with its types. **05**
- b)** Explain with the help of example how friend function acts as a bridge between two classes. **05**
- Q.4 a)** Write a c++ program to show the concept of overloaded constructors. **05**
- b)** Write a c++ program for overloading the function area, to calculate area of rectangle and square. **05**
- Q.5 a)** Write a program for transfer the data of one file to another file. **05**
- b)** Write a program to accept character and display it using put() and get(). **05**
- Q.6 a)** What is visibility mode? Explain all. **05**
- b)** Explain static member variable with program. **05**
- Q.7 a)** Explain multiple inheritance with an example. **05**

Bachelor of Computer Applications Examination: October 2014

Semester – V OLD COURSE (60/40 PATTERN REPEATER)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Monday 13/10/2014	V (60/40 Pattern) (Repeater)	Data Communication & Computer Network	11.00 AM to 01.00 PM	5003	60

Note: 1) Q. 1 is compulsory.
2) Attempt any four from Q2 to Q8

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- Q.1 Explain the following using appropriate diagrams: 12**
1. Frequency
 2. Amplifier
 3. Single mode optical fiber
 4. Mesh Technology
 5. Reliable connection oriented service
 6. Bridge
- Q.2 Differentiate between the following: 12**
- a) OSI and TCP/IP network models
 - b) Synchronous and Asynchronous transmission
- Q.3 a) Explain twisted pair cable and its type. 06**
- b) Explain data gram switching technique. 06**
- Q.4 Discuss the following CSMA protocols in detail. 12**
- a) 1 – persistent
 - b) p – persistent
 - c) non – persistent
- Q.5 a) Discuss the following ALOHA techniques 06**
- i. Pure ALOHA
 - ii. Slotted ALOHA
- b) What is framing? Discuss the bit stuffing method of framing. 06**
- Q.6 a) Explain the communication model with diagram. 06**
- b) Explain the following transmission impairments - 06**
- i. Delay distortion
 - ii. Attenuation

Bachelor of Computer Applications Examination: October 2014
Semester – V OLD COURSE (60/40 PATTERN REPEATER)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Friday 17/10/2014	V (60/40 Pattern) (Repeater)	Enterprise Resource Planning (New Course)	11.00 AM to 01.00 PM	5004	60

Note: 1) Q. 1 is compulsory.
 2) Attempt any four from Q2 to Q8

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- Q.1 Briefly explain the following:** **12**
1. Supply Chain Management
 2. Evolution of ERP
 3. Extended ERP
 4. Order Winner and Qualifier
- Q.2 a)** Explain any 6 benefits of ERP system. **06**
- b)** What are the reasons for explosive growth of ERP Market? **06**
- Q.3 a)** Describe the concept of linkages between BPR, IT and ERP. **06**
- b)** Why do many ERP Implementation fail? **06**
- Q.4 a)** What kind of training is required for using ERP system? **06**
- b)** Why Integrated Data Model (IDM) is considered to be the heart of an ERP system? **06**
- Q.5** Describe the complete ERP Implementation methodology. **12**
- Q.6** What is the role of consultants, vendors and user during ERP implementation? **12**
- Q.7** What is BPR? Explain phases of BPR in detail. **12**
- Q.8 Write a note on any three:** **12**
1. Seamless Integration
 2. Business as a system
 3. BIG BANG Theory
 4. Competitive advantages using ERP



Bachelor of Computer Applications Examination: October 2014

Semester – V OLD COURSE (60/40 PATTERN REPEATER)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Saturday 11/10/2014	V (60/40 Pattern) (Repeater)	Object oriented programming using c++	11. 00 AM to 01. 30 PM	5002	60

**Note: Question No. 1 is compulsory.
Attempt any four questions from Q.2 to Q.8**

- Q.1 Explain the following terms:** **12**
- a) Dynamic Binding
 - b) Encapsulation
 - c) Destructor
 - d) Reference Variable
 - e) Scope Resolution (::)
 - f) this pointer
- Q.2 a) Explain Inheritance with type.** **06**
- b) Explain the concept of object oriented paradigm.** **06**
- Q.3 a) What is Constructor? State its Characteristics.** **06**
- b) What is Operator Overloading? Write rules for operator overloading.** **06**
- Q.4 a) Write a program using multiple catch statements.** **06**
- b) Write a program to explain Constructor and Destructor.** **06**
- Q.5 a) Explain with program friend function.** **06**
- b) Explain component of STL** **06**
- Q6. a) Explain term Template. Also write a short note on template function.** **06**
- b) Explain Polymorphism with its types.** **06**
- Q7. a) Define an exception. Explain try block, catch block and rethrowing an exception with program.** **06**
- b) What different file handling modes are available in C++?** **06**

Bachelor of Computer Applications Examination: October 2014
Semester – V (Repeater-Old course) (60-40 Pattern)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Saturday 18/10/2014	V (Repeater)	Introduction to Software Engineering	11.00 AM To 01.00 PM	5005	60

Note: Q. 1 is compulsory and Attempt any 4 questions from Q.2 to 8

-
- Q. 1 a.** Explain different areas indicating software applications. **06**
- b.** With respect to Software Engineering, discuss Software Process. **06**
- Q. 2 a.** Explain Software Engineering Layers. **06**
- b.** Explain Waterfall Model. **06**
- Q. 3** State true or false and justify. **06**
- a.** If we get behind schedule, we can add more programmers and catch up.
- b.** What factors should be considered when the structure team is chosen? **06**
- Q. 4 a.** Give short note on MOI. **06**
- b.** Define terms – Measure, Metric, Indicator **06**
- Q. 5** What is Software Project Estimation? Explain Empirical Estimation Model. **12**
- Q. 6 a.** Explain Project Scheduling. **06**
- b.** Explain how does schedule tracking is done? **06**
- Q. 7** Define Risk. What types of risks are likely to encounter as the software is built?
Explain how risk project is done. **12**
- Q. 8 a.** Explain QFD. What types of requirements are identified by QFD? **06**
- b.** Explain Cohesion. **06**



Bachelor of Computer Applications Examination: October 2014
Semester – V OLD COURSE (60/40 PATTERN REPEATER)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Friday 10/10/2014	V (60/40 Pattern) (Repeater)	Introduction to statistical methods & Numerical Methods	11.00 AM to 01.00 PM	5001	60

- Note:** 1) Q. 1 is compulsory.
 2) Attempt any four from Q2 to Q8
 3) Use of non-programmable & chart “Area under standard normal probability curve” is allowed
 4) Figures to the right indicate full marks.

Q.1 a) Solve **(6)**

$$x - y + 3z = 2$$

$$2x + y + 2z = 2$$

$$-2x - 2y + z = 3$$

Using Matrix Inversion Method.

b) Four cards are drawn without replacement. What is the probability that **(6)**

i) they all have the same value

ii) they are all of different suits

Q.2 a) Find a real root of the equation $x^3 - x - 2 = 0$ correct upto two decimal places using Bisection Method. **(7)**

b) Evaluate **(5)**

i) $\Delta^3 (5e^x)$

i) $\left(\frac{\Delta^2}{E}\right) x^3$

Q.3 a) Derive Trapezoidal Rule. **(7)**

b) Using Euler’s method, find the approximate value of y when x=1 by taking n=0.25

where **(5)**

$$\frac{dy}{dx} = x + 2y \quad y(0) = 0$$

Q.4 a) Using Simpson’s $\left(\frac{1}{3}\right)^{th}$ rule, calculate the appropriate value of $\int_{-3}^3 x^4 dx$, by taking 7 equidistant ordinates **(6)**

Bachelor of Computer Applications Examination: October 2014
Semester – V OLD COURSE (60/40 PATTERN REPEATER)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Monday 20/10/2014	V (60/40 Pattern) (Repeater)	Web Technology – I	11.00 AM to 01.00 PM	5006	60

Note: 1) Q1 Compulsory.
2) Solve any 5 from Q2 to Q8

Q1) Solve **10**

- a) What are attributes?
- b) Explain web page and web site.
- c) Explain <input> tag of HTML.
- d) What is difference between a Checkbox & a Radio button
- e) Explain the METHOD attribute of a form.

Q2) a) Write HTML code for following **5**

Toys Detail

Category	Name	Price
Stuffed Toys	Teady Bear	\$90
	Donald	\$75
Electronic Toys	Train	\$150
	Car	\$100

b) Explain GET method of Client request with example. **5**

Q3) a) Explain the following Popup Boxes any two **5**

- i) Alert
- ii) Confirm
- iii) Prompt

b) Define JavaScript? State different features/characteristics of Jscript **5**

Q4) a) Write html code for creating link to specific location within document. **5**

Bachelor of Computer Applications Examination: October 2014

Semester – V OLD COURSE (FRESH/REPEATER)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Friday 17/10/2014	V (FRESH /REPEATER)	Management Information System	11. 00 AM to 01. 30 PM	5005	75

**Note: Q1 is compulsory.
Solve any 4 from Q2 to Q8
Draw figure wherever necessary**

-
- Q1) a)** Explain any five characteristics of an MIS. **10**
b) Explain any two types of system. **5**
- Q2) a)** Write short note on the following (Any Two): **6**
1. Herbert Simon Model
2. Personnel Subsystem
3. Programmed v/s Non-programmed decisions
- b) Explain Methodology of planning. **4**
c) Explain methods to avoid misuse of information. **5**
- Q3) a)** Differentiate between Life Cycle Approach & Prototype Approach. **7**
b) Explain functions of an MIS. **8**
- Q4) a)** Explain concept of an MIS? **4**
b) Explain Interaction of three levels of management. **6**
c) Explain parameters of information. **5**
- Q5) a)** Define system. Explain decomposition of system. **6**
b) Explain General Model of Human as an Information Processor. **6**
c) Define MIS. **3**
- Q6) a)** Write steps of System Analysis & Design of Information system. **8**
b) Explain methods of data & information collection. **7**
- Q7) a)** Explain any two steps of design of information system. **10**
b) Explain any one section of Information System Master Plan. **5**
- Q8) a)** Explain classification of information. **5**
b) Explain Attributes of Information. **6**
c) Explain Cybernetic System. **3**



Bachelor of Computer Applications Examination: October 2014

Semester – V (Fresh & Repeater)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Monday 20/10/2014	V (Fresh & Repeater)	Introduction to Software Engineering	11.00 AM to 01.30 PM	5006	75

Note: Q. 1 is compulsory
Attempt any 4 questions from Q.2 to 8

- Q1. a)** Define software. What are the attributes of good software? [5]
b) What makes a FAST meeting different from an ordinary meeting? [5]
c) "Recognition of human differences is the first step towards creating teams that jell", state whether true or false & justify. [5]
- Q2. a)** Explain different players of the software project team. [7]
b) Describe the RAD model giving advantages & disadvantages. [8]
- Q3. a)** Define Risk. What types of risks are likely to occur as the software is built? [7]
b) Explain MOI model & the characteristics of an effective project manager? [8]
- Q4. a)** Explain the COCOMO model of project cost estimation. [7]
b) Define Project Planning. Explain the resources that are required to build the software. [8]
- Q5. a)** Explain how Risk Projection is done. [7]
b) How is Failure Analysis done? [8]
- Q6. a)** What are the components of cost of quality? [7]
b) Define Cyclomatic complexity. How is it computed? [8]
- Q7. a)** What is software Configuration Management? Explain the various steps in SCM. [7]
b) Write short notes on: [8]
i) Flowchart
ii) Pseudocode.
- Q8. a)** Define Indirect measures & explain Function Oriented metrics with example. [7]
b) Differentiate between White box testing & Black testing methods. [8]



Bachelor of Computer Applications Examination: October 2014

Semester – V OLD COURSE (FRESH/REPEATER)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Wednesday 08/10/2014	V (FRESH /REPEATER)	Introduction to statistical Methods & Numerical methods	11. 00 AM to 01. 30 PM	5001	75

- Note:** 1) Que. 1 is compulsory.
 2) Attempt any four from Q.2 to Q.8
 3) Use of calculator is allowed

Q.1 a) Solve by matrix inversion method **5**

$$3x + y + 2z = 3$$

$$2x - 3y - z = -3$$

$$x + 2y + z = 4$$

b) Find the probability that in a random arrangement of the letters of the word 'ASSASSINATION', the 4 S's come consecutively **5**

c) Define mathematical expectation prove that $E(C) = C$ where $C = \text{constant}$
 $E(CX) = CE(X)$ where $C = \text{constant}$ **5**

Q.2 a) State & prove Addition theorem of probability and also prove that $P(A') = 1 - P(A)$ where A' is the complement of A. **8**

b) Find the missing term from the following table - **7**

x	0	1	2	3	4	5
y= f(x)	1	3	11	--	189	491

Q.3 a) Evaluate $\int x^2 dx$ integration from 0 to 1 by using Trapezoidal & Simpson's (1/3)rd rule dividing [0,1] into 5 equal parts. **8**

b) A committee of four is to be formed from 3 engineers, 4 economists, 2 statisticians, & 1 chartered accountant - **7**

- i. What is the probability that each of the four categories of profession is included in the committee
- ii. What is the probability that the committee consists of chartered accountant & at least one engineer.

Bachelor of Computer Applications Examination: October 2014

Semester – V OLD COURSE (FRESH/REPEATER)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Friday 10/10/2014	V (FRESH /REPEATER)	Java Programming (TH.)	11. 00 AM to 01. 00 PM	5002	50

**Note: Q1 is compulsory.
Solve any 4 from Q2 to Q7**

-
- Q1) Solve** **10**
- a) Define – Synchronization?
 - b) Under which situation finally () is not executed.
 - c) Explain any two jump statements.
 - d) What are the three uses of final keyword?
 - e) What is the use of super keyword?
- Q2) a) Explain all types of constructors with suitable example.** **5**
- b) Explain java's garbage collection mechanism.** **5**
- Q3) a) Describe the life cycle of an applet.** **5**
- b) Explain BorderLayout and Flowlayout provided by layout manager?** **5**
- Q4) a) Write java program that accepts a number from command line and test whether it is positive or negative or zero. Use an Exception handler which handles NumberFormatExceptions.** **5**
- b) Explain substring() and indexOf() string functions with examples.** **5**
- Q5) a) Write a java program to accept a string from command line and print into pyramid format (eg. MAHARASHTRA TO M)** **5**
- b) Describe the complete life cycle of thread.** **5**
- Q6) a) Differentiate between connectionless and connection oriented communication.** **5**
- b) What is collection framework? Explain its goals.** **5**
- Q7) a) Write short notes on:** **10**
- 1) PrintWriter
 - 2) Predefined streams



Bachelor of Computer Applications Examination: October 2014 Semester – V (Fresh & Repeater)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Tuesday 21/10/2014	V (Fresh & Repeater)	Web Technology – I	11. 00 AM to 01.00 PM	5007	50

Note: 1] All questions carry equal marks.
2] Question No 1 is compulsory.
2) Attempt any 4 questions from Q2. To Q8.

Q1 Solve: **[10]**

- A]** Explain FRAME and FRAMESET tags.
- B]** Explain use of cellspacing & cellpadding attributes.
- C]** Differentiate between singular & paired tags.
- D]** Define the term-Website, Web content.

Q2 A] What is Internet? State Advantages & Disadvantages of Internet. **[05]**

B] Which are two basic Methods of accomplishing virtual Hosting, Explain? **[05]**

Q3 A] Explain character formatting tags in HTML. **[05]**

B] What is List? Explain it's type. **[05]**

Q4 A] Write HTML code for a webpage displaying six celled table. **[05]**

B] Write HTML code to create a Textarea of 20 columns & 20 rows in the form of include message. "This is Textarea Example" in that textarea. **[05]**

Q5 A] Explain Internal & External style sheet. **[05]**

B] Explain basic code structure of HTML. **[05]**

Q6 A] Explain the different kind of JS Popup Boxes. **[05]**

B] Explain the following built in objects. **[05]**

- i)** String
- ii)** Date
- iii)** Array
- iv)** Math

**Bachelor of Computer Applications Examination: October 2014
Semester – VI OLD COURSE (60/40 PATTERN REPEATER)**

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Monday 13/10/2014	VI (60/40 Pattern) (Repeater)	System Software	02.30 PM to 04.30 PM	6003	60

Note: 1. Q1 is compulsory.
2. Attempt any three questions from Q2 to Q8.

-
- Q.1 Explain the terms:** **15**
1. Overlay
 2. Context free grammar
 3. Interpreter
 4. Linker
 5. System software
- Q.2 a) Explain the tasks performed by a lexical analyzer.** **06**
- b) What is loader? Explain the functions performed by a loader.** **06**
- c) State and explain the format of assembly language statement.** **03**
- Q.3 a) Describe compilation process. What are different phases of a compiler?** **08**
- b) Explain two Pass structure of an assembler.** **07**
- Q.4 a) Describe keyword parameters and positional parameters used in a Macro with you own example.** **08**
- b) Explain various data structures handled by assembler.** **07**
- Q.5 a) What are the functions handled by a lexical analyzer?** **06**
- b) Describe top down parsing with example.** **06**
- c) Explain interface to a lexical analyzer.** **03**
- Q.6 a) Why is a Macro written? Explain Macro definition. Macro call and their use.** **08**
- b) State and explain any two optimizing transformations.** **07**

**Bachelor of Computer Applications Examination: October 2014
Semester – VI OLD COURSE (60/40 PATTERN REPEATER)**

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Friday 17/10/2014	VI (60/40 Pattern) (Repeater)	Web Technology	02.30 PM to 04.30 PM	6004	60

Note: 1. Q1 is compulsory.
2. Attempt any four questions from Q2 to Q8.
3. Give examples wherever necessary

Q.1 Answer the followings: **12**

1. What is an ASP file?
2. W3C members
3. Distinguish between JavaScript and VBScript
4. How to write an ASP code?
5. Explain Sessions variable
6. How to create Cookies?

Q.2 a) Explain ASP Application object with suitable example. **06**

b) What is File System Object? List out the properties and methods? **06**

Q.3 a) Explain syntax rules of XML. **06**

b) Explain XML Elements v/s Attributes with suitable example. **06**

Q.4 a) What is Drive object? List out the properties of Drive object. **06**

b) Write a program to print members 1 to 10 using while statement. **06**

Q.5 a) Explain: **06**

1. <!ELEMENT note ANY>
2. <!ELEMENT note (to, from, heading, body)>
3. <!ELEMENT br empty>
4. <!ELEMENT note (message*)>
5. <!ELEMENT note (message+)>
6. <!ELEMENT note (message?)>

**Bachelor of Computer Applications Examination: October 2014
Semester – VI OLD COURSE (60/40 PATTERN REPEATER)**

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Saturday 11/10/2014	VI (60/40 Pattern) (Repeater)	Management Information System	02. 30 PM to 04. 30 PM	6002	60

Note: Attempt any six questions from Q.No.1 to Q.No.7

- Q.1 a)** What is system? What are different types of system **[05M]**
- b)** Discuss the pitfalls in MIS development **[05M]**
- Q.2 a)** Why long range Information system plans are necessary? What are the contents of the MIS plan? **[05M]**
- b)** Difference between prototype and life cycle approach of developing MIS **[05M]**
- Q.3 a)** Explain the concepts of Information. Describe the model of communication **[05M]**
- b)** What is MIS? What are the various characteristics of MIS **[05M]**
- Q.4 a)** Distinguish between programmable and non-programmable Decisions **[05M]**
- b)** Discuss the role of Information in decision-making. **[05M]**
- Q.5 a)** State and explain the need for system analysis **[05M]**
- b)** Explain Finance and Accounting Information System. **[05M]**
- Q6. a)** What are the methods to avoid misuse of Information **[05M]**
- b)** Explain process Design **[05M]**
- Q7. a)** Explain Robert Anthony’s hierarchy of management activity **[05M]**
- b)** State and Explain information requirements at different levels of management **[05M]**



Bachelor of Computer Applications Examination: October 2014
Semester – VI OLD COURSE (60/40 PATTERN REPEATER)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Saturday 18/10/2014	VI (Repeater)	Introduction to Artificial Intelligence	02.30 PM to 04.30 PM	6006	60

Note: Attempt any 6 questions from Q.No.1 to Q.No.8

- Q.1) a)** Explain the nature of Environment & properties of task Environment? **[5M]**
b) Write a short note on Breadth first search? **[5M]**
- Q.2) a)** Describe forward chaining and backward chaining with example **[5M]**
b) Write a short not on Quantifiers **[5M]**
- Q.3) a)** Explain syntax and semantics of First Order Logics **[5M]**
b) What is Alpha-Beta Pruning **[5M]**
- Q.4) a)** Write a note on Inductive Learning **[5M]**
b) Explain Genetic Algorithms **[5M]**
- Q.5) a)** Write a note on Wumpus World **[5M]**
b) Difference between Greedy search and A* search **[5M]**
- Q.6) a)** List properties of SMA* search **[5M]**
b) Explain two iterative improvement algorithms **[5M]**
- Q.7) a)** Explain Syntax and semantics of Propositional Logic **[5M]**
b) Write a note on Kinship Domain **[5M]**
- Q.8) a)** What is mean by Agent? What are different types of agent? **[5M]**
b) Write a note on Minimax algorithm **[5M]**



**Bachelor of Computer Applications Examination: October 2014
Semester – VI OLD COURSE (60/40 PATTERN REPEATER)**

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Friday 10/10/2014	VI (60/40 Pattern) (Repeater)	Java Programming	02.30 PM to 04.30 PM	6001	60

Note: 1. Q1 is compulsory.
2. Attempt any four questions from Q2 to Q8.

-
- Q.1 a)** Explain the features of java or java Buzzwords in detail. **08**
- b)** Explain java virtual machine. **04**
- Q.2 a)** Define a class “Circle” including methods – void process (float r) which calculates area and circumference of circle having radius r. void result() which displays the calculate result. **06**
- b)** Explain the life cycle of a Thread. **06**
- Q.3 a)** What is method overriding? Explain it with example. **06**
- b)** Write a java program that accepts number from command line and tests whether it is positive or negative or zero. Use an exception handler which handles Number Format Exception. **06**
- Q.4 a)** Differentiate between connectionless and connection oriented communication. **06**
- b)** Write an applet program that draws rectangle, ellipse and fills with green color. **06**
- Q.5 a)** Explain different types of access specifiers available for packages & classes in java. **06**
- b)** Create an applet which draws human face. **06**
- Q.6 a)** What is collection framework? Explain collection interface. **06**
- b)** Explain any two layouts a layout manager provides. **06**
- Q.7 a)** Write a java program that throws and catches ArrayIndex OutOfBoundsException and NegativeArraySizeException. **06**
- b)** Explain java’s garbage collection mechanism **06**
- Q.1 a)** Explain push button and list control of awt. **06**
- b)** Write a java program to print following series of integer nos. **06**
500 475 450 425 400 ...first n terms.



**Bachelor of Computer Applications Examination: October 2014
Semester – VI OLD COURSE (60/40 PATTERN REPEATER)**

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Saturday 18/10/2014	VI (Repeater)	Open Source Programming	02.00 PM to 04.30 PM	6007	60

Note: Q1 is compulsory. Answer any Five from Q2 to Q8.

-
- Q1. a)** Explain PHP forms with example 8
b) Explain the steps to change the password 2
- Q2. a)** What is LAMP framework? 5
b) Explain 3T Architecture 5
- Q3. a)** List out minimum Red Hat Linux Hardware requirements while install 5
b) List out RPM commands 5
- Q4.** Explain the following functions 10
a) mysql-query ()
b) mysql-connect ()
c) mysql-fetch-array ()
d) mysql-error ()
- Q5.** Explain \$_GET and \$_POST with example 10
- Q6. a)** Explain concatenation with example 5
b) Explain Exception in PHP 5
- Q7. a)** Explain Associative array 5
b) Explain require() function 5
- Q8. a)** Write the syntax and example to create table in mySQL 5
b) List out the common errors in mySQL 5



Bachelor of Computer Applications Examination: October 2014

Semester – VI OLD COURSE (REPEATER)

Day & Date	Semester	Subject Name	Time	Code	Max. Marks
Monday 13/10/2014	VI (Repeater)	Web Technology – II (Th.)	02. 30 PM to 04. 30 PM	6004	50

Note: 1) Q. No. 1 is compulsory
2) Attempt any 4 questions from Q. No. 2 to Q. No. 8

-
- Q.1 Attempt the following:** **10**
- a) What is an ASP File?
 - b) How does ASP differ from HTML?
 - c) What is Dictionary object?
 - d) What is W3C?
 - e) Write a program to format text with HTML tags in ASP?
- Q.2 a)** What is Folder Object? Explain the properties of Folder object. **05**
- b)** Explain ASP Drive Object with example. **05**
- Q.3 a)** Write a program to demonstrate the use of subroutine. **05**
- b)** Write a ASP Program to print the following pattern. **05**
- ```
*
* *
* * *
* * * *
```
- Q.4 a)** What is Cookies? What are the advantages and disadvantages of Cookies? **05**
- b)** Write an ASP code to display today's date. **05**
- Q.5 a)** Explain DTD-XML building blocks. **05**
- b)** Explain rules of XML? **05**
- Q.6 a)** Explain advantages of ISP. **05**
- b)** Which are the differences directives used in JSP? **05**

# Bachelor of Computer Applications Examination: October 2014

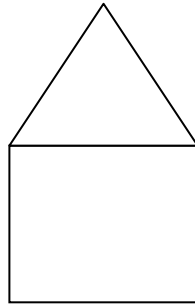
## Semester – VI OLD COURSE (REPEATER)

| Day & Date           | Semester      | Subject Name  | Time                         | Code | Max. Marks |
|----------------------|---------------|---------------|------------------------------|------|------------|
| Friday<br>17/10/2014 | VI (Repeater) | Advanced Java | 02. 30 PM<br>to<br>04. 30 PM | 6006 | 50         |

**Note:** 1) Q. No. 1 is compulsory  
2) Attempt any 5 questions from Q. No. 2 to Q. No. 7

**Q.1** What is Java technology? Explain why java is called Platform independent. (10)

**Q.2** Create an applet to draw a house as follows: (10)



**Q.3** What is swing? Explain with the help of example (program). (10)

**Q.4 a)** Explain JSP. (5)

**b)** What is Servlet? Give lifecycle of Servlet. (5)

**Q.5 a)** Explain RPC. (5)

**b)** Explain JFC. (5)

**Q.6** Explain inheritance in Java. Give implementation of Multiple inheritance in java. (10)

**Q.7** What is Eventhandling? Explain with an appropriate program. (10)



# Bachelor of Computer Applications Examination: October 2014

## Semester – VI OLD COURSE (REPEATER)

| Day & Date           | Semester      | Subject Name      | Time                         | Code | Max. Marks |
|----------------------|---------------|-------------------|------------------------------|------|------------|
| Friday<br>17/10/2014 | VI (Repeater) | Computer Security | 02. 30 PM<br>to<br>05. 00 PM | 6006 | 75         |

**Note:** 1) Q. No. 1 is compulsory  
2) Attempt any 5 questions from Q. No. 2 to Q. No. 8

- 
- Q.1 a)** What is computer security? Explain the goals and applications. (10)
- b)** Define security policies in computer security. (5)
- Q.2 a)** Explain the following terms: (8)
- 1) Agents
  - 2) Virus
  - 3) Transient Virus
  - 4) Residential Virus
- b)** Explain software theft. (4)
- Q.3 a)** Define & explain buffer overflow. (6)
- b)** Explain the term Time-to-Check to Time-of-Use Errors. (6)
- Q.4 a)** Define cryptography. Explain the types of cryptography. (6)
- b)** Explain Caesar cipher with its advantages and disadvantages. (6)
- Q.5 a)** Explain the design principles of the operating system. (8)
- b)** Write a short note on Reference Monitor. (4)
- Q.6 a)** Define sensitive data. Explain the factor which makes the data sensitive. (6)
- b)** Explain the direct attack and indirect attack. (6)
- Q.7 a)** Write the short notes on: (4)
- 1) Tracker Attack
  - 2) Linear system vulnerability

**Bachelor of Computer Applications Examination: October 2014**  
**Semester – VI OLD COURSE (REPEATER)**

| Day & Date           | Semester      | Subject Name                 | Time                         | Code | Max. Marks |
|----------------------|---------------|------------------------------|------------------------------|------|------------|
| Friday<br>17/10/2014 | VI (Repeater) | Enterprise Resource Planning | 02. 30 PM<br>to<br>05. 00 PM | 6006 | 75         |

**Note: 1) Q. No. 1 is compulsory**  
**2) Attempt any 4 questions from Q. No. 2 to Q. No. 8**

- 
- Q.1 a)** Explain ERP is a Total Solution. (7)  
**b)** Explain concept Accommodating Variety. (8)
- Q.2 a)** Give short note on Evolution of ERP. (8)  
**b)** Give short note on Business Engineering. (7)
- Q.3 a)** What is Extended ERP? (7)  
**b)** Explain Customization during ERP Implementation. (8)
- Q.4** Explain the guidelines for ERP Implementation. (15)
- Q.5 a)** Explain concept BPR. (8)  
**b)** What is the difference between ERP and MRP II? (7)
- Q.6 a)** Discuss the Implementation of ERP in Godrej Soaps and Associates Companies. (8)  
**b)** What precaution can be taken during ERP Implementation? (7)
- Q.7** Explain ERP Implementation Methodology in detail. (15)
- Q.8 a)** Explain Key Issues in – Functionality and Technology. (8)  
**b)** Explain concept Delivery Reliability and Delivery Speed. (7)



# Bachelor of Computer Applications Examination: October 2014

## Semester – VI OLD COURSE (REPEATER)

| Day & Date           | Semester      | Subject Name                            | Time                         | Code | Max. Marks |
|----------------------|---------------|-----------------------------------------|------------------------------|------|------------|
| Friday<br>17/10/2014 | VI (Repeater) | Introduction to Artificial Intelligence | 02. 30 PM<br>to<br>05. 00 PM | 6006 | 75         |

**Note:** 1) Q. No. 1 is compulsory  
2) Attempt any 4 questions from Q. No. 2 to Q. No. 8

- 
- Q.1 a)** Write a note on Greedy best first Search? (10)
- b)** Explain various Forms of Learning. (5)
- Q.2** Write a short note on: (15)
- 1) Minimum algorithm
  - 2) Alpha – Beta pruning
- Q.3 a)** Write the components of problem and formulate any Toy problem. (7)
- b)** Explain Hill Climbing Search. (8)
- Q.4 a)** For each of the following agents, develop PEAS description of the task environment. (12)
1. Medical Diagnosis System
  2. Vaccum Cleaner
  3. Interactive English tutor
  4. Refinery Controller
  5. Part picking robot
  6. Satellite image analysis system
- b)** Write down the steps to convert a sentence into CNF. (3)
- Q.5 a)** Write note on Forward and Backward Chaining? (5)
- b)** Write a note on Heuristic function. (5)
- c)** Define informed and uninformed search. (5)
- Q.6 a)** Explain A\* with example. (7)
- b)** Describe Current best hypothesis search. (8)

# Bachelor of Computer Applications Examination: October 2014

## Semester – VI OLD COURSE (REPEATER)

| Day & Date              | Semester      | Subject Name               | Time                         | Code | Max. Marks |
|-------------------------|---------------|----------------------------|------------------------------|------|------------|
| Wednesday<br>08/10/2014 | VI (REPEATER) | Open source<br>Programming | 02. 30 PM<br>to<br>04. 30 PM | 6001 | 50         |

**Note:**

- 1. Q.1 is compulsory.**
- 2. Attempt any four questions from Q. No 2 to Q. No 8**

- 
- Q. No 1 A]** What is PHP? Explain variables in PHP along with rules and example [5]  
**B]** Explain array in PHP. [5]
- Q. No 2 A]** Explain L.A.M.P. Frameworks [5]  
**B]** List out the minimum Red Hat Linux Hardware requirement while install [5]
- Q. No 3 A]** Explain three tier architecture [5]  
**B]** Explain
1. Starting PHP Session [1]
  2. Storing PHP Session [2]
  3. Destroying PHP Session [2]
- Q. No 4** Explain [5×2] [10]
1. Bridge
  2. Gateway
  3. Hub
  4. Repeater
  5. Router
- Q. No 5 A]** List out RPM Commands [5]  
**B]** Explain GRANT and REVOKE in mySQL [5]
- Q. No 6** Explain \$\_GET and \$\_POST with examples [10]



# Bachelor of Computer Applications Examination: October 2014

## Semester – VI OLD COURSE (REPEATER)

| Day & Date           | Semester      | Subject Name    | Time                         | Code | Max. Marks |
|----------------------|---------------|-----------------|------------------------------|------|------------|
| Friday<br>10/10/2014 | VI (Repeater) | System software | 02. 30 PM<br>to<br>05. 00 PM | 6003 | 75         |

**Note: 1) Q. No. 1 is compulsory**

**2) Attempt any 4 questions from Q. No. 2 to Q. No. 8**

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- Q.1 a)** Explain three kinds of assembly language statements. (6)
- b)** Define system software. What is difference between system s/w and application s/w? (5)
- c)** What are basic loader functions? (4)
- Q.2 a)** Explain the phases of compiler with an example. (10)
- b)** What are advantages of assembly language programming? (5)
- Q.3 a)** State and explain the categories of system software. (7)
- b)** What is linking of program overlays? (8)
- Q.4 a)** What is two pass translation in assembler? (8)
- b)** What is context free grammar? Explain. (7)
- Q.5 a)** Define macro, macro definition. What are macro expansions? Explain. (8)
- b)** State optimizing transformations. Explain any two. (7)
- Q.6 a)** Write short note on: (15)
- i)** Absolute loader scheme.
  - ii)** Top-down & Bottom-up parsing
  - iii)** Program relocation.
- Q.7 a)** Describe 'compile and go' loader scheme. (7)
- b)** Explain the task performed by analysis and synthesis phase of assembler. (8)

