End Semester Examination, May 2015

BCA -First Semester
COMPUTER FUNDAMENTALS AND PROGRAMMING IN 'C' (BCA-101)

Time: 3 hrs

Max Marks: **75**

No. of pages: 2

Note: *Attempt **FIVE** questions in all; **taking at least ONE question** from each Unit.*
Q.1 is compulsory. *All questions carry equal marks.*

Q.1 a) MICR stands for:
    i) Magnetic ink character reader   ii) Magnetic ink code reader
    iii) Magnetic ink cases reader   iv) None of the above.

  b) Which operation is not performed by a computer?
    i) Inputting   ii) Processing
    iii) Controlling   iv) Understanding

  c) The binary equivalent of 74 is:
    i) 1001011   ii) 1001010
    iii) 1010101   iv) 1001101

  d) Which of the following is not a logical operator?
    i) &   ii) &&
    iii) !!   iv) !

  e) Which of the following can't be checked in switch case?
    i) Character   ii) Integer
    iii) Float   iv) enum

  f) Nested structures are allowed in 'C':
    i) Yes   ii) No

  g) Which of the following are unary operators in 'C'?
    i) !   ii) sizeof
    iii) ~   iv) &&

  h) Name any two first generation computers:

  i) _____ is the father of computer.

  j) CD-ROM stands for _____.   **1½x10**

UNIT-I

Q.2 a) Explain any five input devices.   **10**
  b) What is the difference between computer and human being?   **5**

Q.3 a) Explain any three output devices.   **6**
  b) Compute the following: $(11011.1101)_2 = (?)_{10} = (?)_8 = (?)_{16}$ **9**

UNIT-II

Q.4 a) What are various problem solving approaches? Explain them with their advantages and disadvantages.   **10**
  b) Draw a flowchart to find out sum of n natural numbers.   **5**

Q.5 a Differentiate between:
    i) Primary and secondary memory
    ii) Algorithm and flowchart   **7½x2**

UNIT-III

Q.6 a) Write a program to find reverse of a number and check whether it is palindrome or not? **10**

     b) What are various tokens available in 'C'? **5**

Q.7 a) What do you mean by preprocessor directive? **5**

     b) What are various operators available in 'C' language? **10**

UNIT-IV

Q.8 a) What do you mean by array? What are its advantages and disadvantages? **10**

     b) Explain any two library functions in detail. **5**

Q.9 What is the difference between call-by-value and call-by-reference? Write a program to swap two numbers using both call-by-value and call-by-reference. **15**

End Semester Examination, May 2015
BCA -First Semester
ELEMENTS OF MATHEMATICS (BCA-102)

Time: 3 hrs   Max Marks: **75**

No. of pages: 2

Note: *Attempt **FIVE** questions in all; **taking at least ONE question** from each Unit.*
        ***Q.1 is compulsory.** All questions carry equal marks.*

Q.1   a) In a throw of dice, what is the probability of getting number greater than 5?
      b) If a set A has n elements, then the total number power set of A is _____.
      c) Find the 7th term of sequence $2, 4, 6, 8$ _____.
      d) What is the value of $\sin\dfrac{3\pi}{2} + \cos\dfrac{2\pi}{3}$.
      e) If $\sin(x+20) = \cos x$, find the value of x.
      f) The value of $\log_5(1/125)$ is _____.
      g) If $\log_{32} x = 0.8$, then x is equal to _____.
      h) If we differentiate: $y = \dfrac{x^4}{4} + 2x^2$, we get _____.
      i) Evaluate: $\int(5x^2 - 4x + 6dx)$
      j) The general term of G.P. is _____.   **1½x10**

UNIT-I

Q.2   a) In a group of 65 people, 40 like cricket, 10 like both cricket and tennis. Find:
         i) How many like tennis   ii) How many like tennis only and not cricket. **7**
      b) Sum the series $0.3 + 0.33 + 0.333 + \ldots$ to n terms.   **8**

Q.3   a) The 5th term of a G.P is $\dfrac{1}{3}$ and 9th term is $\dfrac{16}{243}$. Find the 4th term.   **7**
      b) Find the domain and range of the following functions:
         i) $y = \dfrac{x^2-1}{x-1},\ x \neq 1$ ii) $y = \sqrt{x}$ **8**

UNIT-II

Q.4   a) Prove that $\sin^4\theta - \cos^4\theta = \sin^2\theta - \cos^2\theta$ **7**
      b) Solve for x $\log(4x-3) = \log(x+1) + \log 3$ **8**

Q.5   a) Prove that $7\log\dfrac{16}{15} + 5\log\dfrac{25}{24} + 3\log\dfrac{81}{80} = \log 2$ **8**
      b) In a bag, there are 100 bulbs out of which 30 are bad ones. A bulb is taken out of
         bag at random. Find the probability of the selected bulb to be good.   **7**

UNIT-III

Q.6   a) Evaluate: $\lim\limits_{x\to a}\dfrac{(x+2)^{5/3} - (a+2)^{5/3}}{x-a}$ **7**

b) If $y = \sqrt{1 + x^5}$; Prove that $\dfrac{dy}{dx} = \dfrac{5x^4}{2y}$ **8**

Q.7 a) For what value of k is the following function continuous at $x = 4$:

$$f(x) = \begin{cases} \dfrac{x^2 - 16}{x - 4} & if \quad x \neq 4 \\ \\ k & if \quad x = 4 \end{cases}$$ **7**

b) If $y = \left(x - \sqrt{1 + x^2}\right)$; Prove that: $\left(1 + x^2\right)\left(\dfrac{dy}{dx}\right)^2 = y^2$ **8**

UNIT-IV

Q.8 a) Evaluate $\displaystyle\int \dfrac{\sin x}{\left(1 + \cos x\right)^2} dx$ **7**

b) Solve the differential equation $\dfrac{dy}{dx} = x \log x$ **8**

Q.9 a) Solve the differential equation $\dfrac{dy}{dx} = \dfrac{y - x}{y + x}$ **8**

b) What is Algebraic structure? Explain Groups and Rings with examples. **7**

End Semester Examination, May 2015
BCA -First Semester
BUSINESS COMMUNICATION-I (BCA-103)

Time: 3 hrs

Max Marks: **75**

No. of pages: 2

Note: *Attempt* **FIVE** *questions in all;* **taking at least ONE question** *from each Unit.* **Q.1 is compulsory.** *All questions carry equal marks.*

Q.1   **Choose / fill the correct option:**
   a) Communication starts with
      i) Message   ii) Sender   iii) Channel   iv) Feedback
   b) The two broad areas of communications are:
      i) Oral and written communication.
      ii) Verbal and written communication.
      iii) Verbal and non-verbal communication.
      iv) Oral and non-verbal communication.
   c) Which of the following are examples of written communication?
      i) Letters and Voicemail   ii) Reports and email
      iii) Circulars and voicemail   iv) Presentations and email.
   d) All the following are external stakeholders of an organization, except:
      i) Media   ii) Government   iii) Suppliers   iv) Shareholders
   e) Readability is determined mainly by:
      i) Punctuation   ii) Length of words
      iii) Active and passive voice   iv) Spelling
   f) Writing style can be improved through use of:
      i) Jargon   ii) Slang   iii) Simple words   iv) Metaphors
   g) One advantage of telephone communication is:
      i) Good for problem solving
      ii) Permits use of some non-verbal cues
      iii) conveying large amount of information
      iv) Keeping a permanent record
   h) All of the following types of information can be posted on the intranet except:
      i) Employee benefits   ii) Declared holidays
      iii) Company policies   iv) Performance appraisals
   i) Which of the following is not a compulsory part of a business letter?
      i) Salutation   ii) Close   iii) Attention line   iv) Body
   j) A resume summarizes the following:
      i) Strengths and weaknesses   ii) Personality
      iii) Education and experience   iv) Hobbies   **1x15**

UNIT-I

Q.2   Choose correct option:
   a) She looks _____ than she is.
      i) much younger   ii) very younger   iii) more young   iv) more younger
   b) We were caught _____ a shower on our way home:
      i) in   ii) with   iii) at   iv) by
   c) Policy, is, the, Honesty, best. (Rearrange to form a meaningful sentence)
   d) Godliness, to, cleanliness, is (Rearrange to form a meaningful sentence)
   e) It may _____ in the afternoon. (raining/rained/rain)

f) Boy:Girl::man: _____
g) "_____do you live?" _____ in India.(Fill up)

h) "_____ do you come to school?" _____ by bus. (Fill up)
i) The antonym of spendthrift is _____.
j) The synonym of honest is _____.
k) Full form of ISDN is _____.
l) Full form of ERP is _____.
m) He _____ from London. (be/ is/ am/ are)
n) What is _____ dog called? (him/ her/ them/ you)
o) _____ English? (Do you be/ You are/ Are you/ Is you)   **1x15**

Q.3 a) Fill in each of the blanks with the correct form of present tense:
   i) Janet _____ Karate class every Saturday. (attend)
   ii) The market _____ usually noisy in the morning. (to be)
   iii) Aanya _____ her room for the past hour. (Paint)
   iv) The delivery man _____ the parcel already. (delivery)
   v) You are late. The bus _____ already. (leave)   **1x5**
   b) Convert to questions:
   i) They are working hard.
   ii) They will be working hard.
   iii) They had worked hard.
   iv) They have been working hard.   **1x4**
   c) Rearrange the words and phrases to form meaningful sentence:
   i) Last / the / week / President / Obama / of / the / USA / India / visited.
   ii) He / the / went / Humayun's / to / tomb / see / with / his.
   iii) He / time / spent / with / some / the / street / in / children / an / NGO.   **2x3**

UNIT-II

Q.4 a) Write your first experience when you visited the collage for the 1st time and the conversation in the form of dialogues you had in Admission Cell.   **8**
   b) You have to organize a business trip to Goa. Mention the conversation between the different managers for the same in the form of dialogue.   **7**

Q.5 a) Mention basic etiquettes that need to be followed while conversing either at college or outside college.   **8**
   b) "People who know how to talk can easily win over hearts". Explain   **7**

UNIT-III

Q.6 How do you define personality? What are its determinants and types?   **15**

Q.7 a) "Goal set is goal half achieved". Do you agree with this? Justify your opinion.   **8**
   b) Who is a facilitator? What are the key roles performed by him?   **7**

UNIT-IV

Q.8 a) Why do we have to design resumes with caution? What are the basic points under consideration while designing resumes?   **8**
   b) Design your resume with the cover letter for the post of Software Engineer in ABC Company Ltd.   **7**

Q.9   a) Why does an organization conduct interviews? What are the different types of interviews? **8**

      b) Explain the role of communication technology in the workplace. **7**

End Semester Examination, May 2015
BCA -First Semester
PC SOFTWARE (BCA-104)

Time: 3 hrs   Max Marks: **75**
No. of pages: 1

Note: *Attempt **FIVE** questions in all; **taking at least ONE question** from each Unit.* **Q.1 is compulsory.** *All questions carry equal marks.*

Q.1 a) The collection of readymade pictures is called _____.
     b) We can change the styles of a shape using _____ tab.
     c) The file extension of EXCEL workbook is _____.
     d) Print review is used for _____.
     e) Ctrl+s key is used for _____.
     f) DOS means DISK OPERATING SYSTEM. ***(True/False)***
     g) All the files in a folder should have same name. ***(True/False)***
     h) WORD can check grammar while checking grammar. ***(True/False)***
     i) Define macro.
     j) Define screen saver.   **1½x10**

UNIT-I

Q.2 a) Explain file management through Windows.   **7½**
     b) Explain Five external commands in DOS.   **7½**

Q.3 a) Write short not on Windows Accessories.   **7**
     b) Define operating system. Discuss the types of operating system.   **8**

UNIT-II

Q.4 a) Create a list of 10 best friends. Create a thank you letter. Use mail merge feature of MS word to create thank you letter for each of your friend from above two files.
                         10
     b) How text is formatted in MSWORD?   **5**

Q.5 Define the following terms:
     i) LINKS   ii) Headnotes   iii) Header and footer
     iv) WIZARDS   v) Tables   **5x3**

UNIT-III

Q.6 a) Explain any five mathematical functions in MS-EXCEL.   **10**
     b) Discuss the concept of Freeze Panes in MS-EXCEL.   **5**

Q.7 a) Explain the following:
        i) Creating a workbook   ii) Opening a workbook
        iii) Saving a workbook   iv) Creating and inserting a worksheet
        v) Deleting a worksheet   **10**
     b) Discuss any two date and time functions.   **5**

UNIT-IV

Q.8 a) How MS-PowerPoint is a better option for a business presentation? Discuss.   **6**
     b) Discuss the various types of views in MS-PowerPoint.   **9**

Q.9   a) Write the steps for the following:
             i) Checking spelling and correcting with objects.
             ii) Adding clipart and other pictures.
             iii) Printing presentation.   **3x3**
        b) Write the benefits of PowerPoint presentation.   **6**

End Semester Examination, May 2015

BCA -Second Semester
DATA STRUCTURES (BCA-201)

Time: 3 hrs   Max Marks: **75**
No. of pages: 2

Note: *Attempt* **FIVE** *questions in all;* **taking at least ONE question** *from each Unit.* **Q.1 is compulsory.** *All questions carry equal marks.*

Q.1   **Fill in the blanks:**
   a) A stack is an ordered list in which all insertion and deletion are made at one end, called _____.
   b) Queue is a _____ list.
   c) The complexity of linear search algorithm is _____.
   d) The operation of processing each element in an array is _____.
   e) The complexity of bubble sort is _____.   **1½x5**

   Multiple choice questions:
   f) When new data are to be insisted into a data structure, but there is no available space, this situation is called:
      i) Underflow   ii) Overflow
      iii) Houseful   iv) Saturated
   g) The largest element of an array index is called its:
      i) Lower bound   ii) Upper bound   iii) Range   iv) None of the above.
   h) The depth of complete binary tree is given by:
      i) $n\log_2 n$ ii) $n\log_2 n+1$ iii) $\log_2 n$ iv) $\log_2 n+1$
   i) The size of a problem is measured in terms of:
      i) Output   ii) Input
      iii) Level of problem   iv) Complexity
   j) Which of the following sorting procedure is the slowest?
      i) Quick sort   ii) Heap sort
      ii) Shell sort   iv) Bubble sort   **1½x5**

UNIT-I

Q.2   a) What do you mean by an algorithm? How can we measure the efficiency of an algorithm?   **8**
   b) Write algorithm to find largest and second largest element from a list.   **7**

Q.3   a) What do you mean by a circular queue? What are the advantages of circular queue over linear queue? Justify your answer.   **8**
   b) Convert the following infix notation into postfix notation:
      $A*(B+C*D)+E$
      Also write an algorithm for the same.   **7**

UNIT-II

Q.4   a) Write recursive algorithm for a binary search. Why binary search is better than linear search? Justify your answer.   **10**
   b) Write a short note on doubly linked list.   **5**

Q.5   a) Write an algorithm for inorder traversal.   **5**
   b) Write a short note on binary tree.   **5**
   c) How can we represent a polynomial using a linked list?   **5**

UNIT-III

Q.6   Write algorithm for merge sort. **15**

Q.7   What are the various ways to represent a graph? Explain with the help of an example.
    15

UNIT-IV

Q.8   a) What are the various file operations? **8**
        b) What are the various collision resolution methods? Explain with example. **7**

Q.9   a) What do you mean by Index Sequential Access Method (ISAM)? **5**
        b) Differentiate between fixed and variable length record. **5**
        c) Hash function **5**

End Semester Examination, May 2015
BCA -Second Semester
MATHEMATICAL FOUNDATION OF COMPUTER SCIENCE (BCA-202)

Time: 3 hrs   Max Marks: **75**

No. of pages: 3

Note: *Attempt **FIVE** questions in all; **taking at least ONE question** from each Unit. **Q.1** **is compulsory.** All questions carry equal marks.*

Q.1   a) Define cardinality of a set with an example.
b) If $P = \{a,b,c\}$ and $Q = \{k,l,m,n\}$, determine $P \times Q$.
c) If $A = \{\phi, a\}$, construct $A \cup P\{A\}$.
d) Explain the working rule of mathematical induction.
e) If a set A has n elements, how many relations are there from A to A.
f) If $X = \{1,2,3\}$, $Y = \{8,9\}$ and $R = \{(1,8),(2,8),(1,9),(3,9)\}$, find $\bar{R}$.
g) The sum of degree of all the vertices in a graph G_1 is even. (True / False)
h) Define path and circuit in graph.
i) Define complete binary tree with an example.
j) Consider the set $A = \{4,5,6,7\}$. Let R be the relation $\subseteq$ of A. Draw the Hasse diagram of R.   **1½x10**

UNIT-I

Q.2   a) Let $X = \{a,b,c\}$. Define $f : X \to X$ such that $f = \{(a,b),(b,a),(c,c)\}$. Find:
   i) f^{-1} ii) f^2 iii) f^3 **6**
b) Prove that $1.2 + 2.3 + 3.4 + \ldots\ldots + n(n+1) = \dfrac{n(n+1)(n+2)}{3}$ by mathematical induction.
9

Q.3   a) Describe equivalence relation briefly.   **5**
b) Let R be a binary relation on the set of all integer I such that:
   $R = \{(a,b) \mid (a-b) \text{ is even integer}\}$. Is R reflexive? Symmetric? Transitive? Equivalence relation?   **5**
c) Prove that by mathematical induction $n(n+1)(2n+1)$ is divisible by 6.   **5**

UNIT-II

Q.4   a) Consider the set $D_{50} = \{1, 2, 5, 10, 25, 50\}$ and relation divides $(/)$ be a partial ordering relation on D_{50}.
   i) Draw Hasse diagram of D_{50} with relation divides.
   ii) Determine all upper bounds of 5 and 10.
   iii) Determine all lower bounds of 5 and 10.
   iv) Determine g.l.b of 5 and 10
   v) Determine l.u.b of 5 and 10   **5**
b) Define sublattice. Consider the lattice of all positive integer I, under the operation of divisibility. The lattice D_n of all divisor of $n > 1$ is a sublattice of I_+. Determine all the sublattice of D_{30} that contain at least four elements $D_{30} = \{1, 2, 3, 4, 5, 6, 10, 15, 30\}$ **10**

Q.5   a) Given the Boolean expression: $f = ABC + B\overline{C}D + \overline{D}BC$
       i)   Make the truth table.   ii)   Simplify using K-map   **8**
   b) Consider the Boolean algebra D_{30}, determine the followings:
       i)   All the Boolean subalgebra of D_{30}
       ii)   All Boolean algebras which are not Boolean subalgebra of D_{30} having atleast
          four elements.   **7**

UNIT-III

Q.6   a) Find the equation of a line passing through the point $(2,3)$ and making an angle of
       45^0 with the line $3x + y - 5$.   **7**
   b) Solve the differential equation $a_r - 7a_{r-1} + 10a_{r-2} = 0$, satisfying the conditions
       $a_0 = 0$ and $a_1 = 6$.   **8**

Q.7   a) Two points $A(0,0)$ and $B(3,\sqrt{3})$ form an equilateral triangle with another point
       $P(x,y)$. Find the coordinate of P.   **8**
   b) Solve the differential equation: $2a_r - 5a_{r-1} + 2a_{r-2} = 0$ and find particular solution
       such that $a_0 = 0$ and $a_1 = 1$.   **7**

UNIT-IV

Q.8   a) Find the minimum spanning tree of the labeled connected graph.
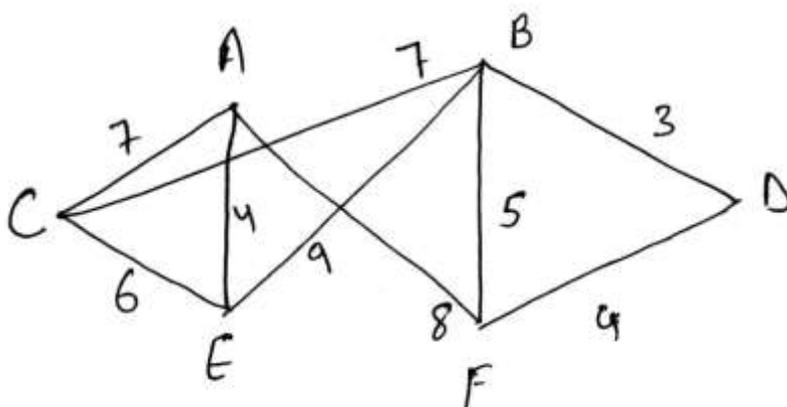
                                                           6
   b) Consider the binary tree as shown below. Draw the binary tree for each of the
       following operations if applied to the binary tree. Also draw the undirected graphs
       K₃ and K₅.
       i)   Delete the node V   ii)   Delete the node E   iii)   Delete the root node R

                                                            9
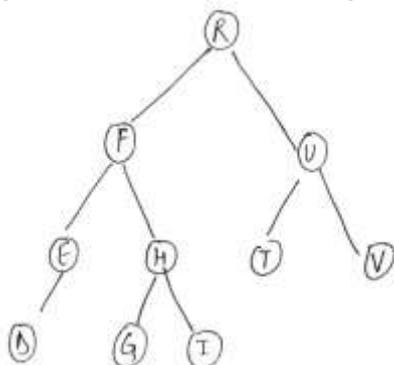
Q.9 Find the shortest path between a to z in the graph.

15
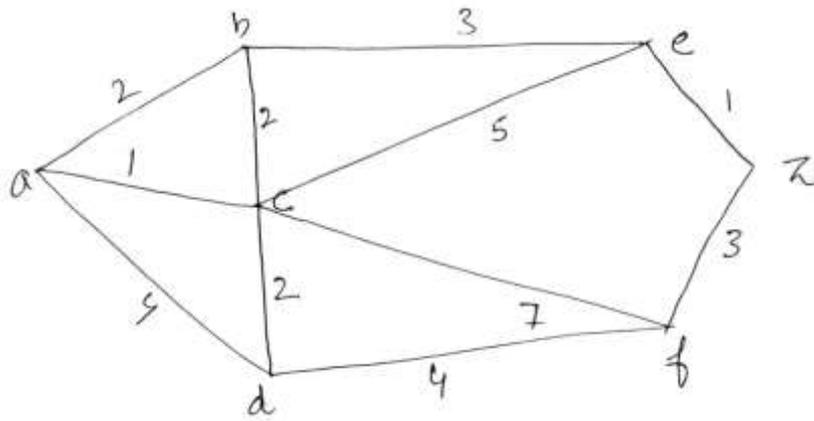
End Semester Examination, May 2015

BCA -Second Semester

PROGRAMMING IN VISUAL BASIC (BCA-203)

Time: 3 hrs   Max Marks: **75**

No. of pages: 1

Note: *Attempt **FIVE** questions in all; **taking at least ONE question** from each Unit.* **Q.1 is compulsory.** *All questions carry equal marks.*

Q.1   a) One of the major strength of Visual Basic language is _____.
       b) _____ and _____ are procedural languages.
       c) Integer data type takes _____ bytes.
       d) Static variables are _____ only once.
       e) _____ is an example of string function.
       f) _____ is a conditional statement.
       g) The reference library of Visual Basic is called _____.
       h) Menus are created using _____ in Visual Basic.
       i) _____ function converts string to numerical value.
       j) In _____only one option can be selected at a time.   **1½x10**

UNIT-I

Q.2   Explain the use of following terms:
       a) Menu Bar   b) Tool Bar   c) Tool Box   **5x3**

Q.3   Explain all the components of Visual Basic IDE (Integrated Development Environment) in detail.   **15**

UNIT-II

Q.4   Explain the following data types in Visual Basic:
       a) String   b) Integer   c) Variant   **5x3**

Q.5   a) Explain the two conditional statements available in Visual Basic with the help of examples.   **10**
       b) Explain the difference between local and static variables using an example.   **5**

UNIT-III

Q.6   Explain the following controls in Visual Basic:
       a) Text Box   b) List Box   c) Frame   **5x3**

Q.7   Differentiate between the followings:
       a) List Box and Combo box
       b) Check Box and Option Button
       c) Label and Text Box   **5x3**

UNIT-IV

Q.8   Explain all the steps required to create a menu using menu editor in Visual Basic.   **15**

Q.9   Explain the following terms:
       a) Data Control   b) Data Grid Control   c) Data Report.   **5x3**

End Semester Examination, May 2015

BCA -Second Semester
DIGITAL DESIGN AND COMPUTER ORGANIZATION (BCA-204)

Time: 3 hrs

Max Marks: **75**
No. of pages: 2

Note: *Attempt* **FIVE** *questions in all;* **taking at least ONE question** *from each Unit.* **Q.1 is compulsory.** *All questions carry equal marks.*

Q.1 **Fill in the blanks:**
   a) _____ flip-flop is used to store data in registers.
   b) The decode instruction in stored in _____.
   c) The output of a gate is low when atleast one of its input is low. It is true for _____ gate.
   d) Micro instructions are stored in _____ memory.
   e) The DMA controller has _____ registers.
   Multiple Choice questions:
   f) A flip-flop has:
      i) One stable state   ii) No stable state
      iii) Two stable state   iv) None of the above
   g) Which of the following expression is in SOP form?
      i) $(A+B)(C+D)$ ii) $(A)B(CD)$
      iii) $AB(CD)$ iv) $AB+CD$
   h) Applying DeMorgan's theorem to the expression $\overline{\overline{(x+y)}+\overline{z}}$, we get:
      i) $(x+y)z$ ii) $(\bar{x}+\bar{y})z$
      iii) $(x+y)\bar{z}$ iv) $(\bar{x}+\bar{y})\bar{z}$
   i) Which of the following expresses the commutative law of multiplication?
      i) $A+B=B+A$ ii) $AB=B+A$
      iii) $AB=BA$ iv) $AB=A\times B$
   j) What are the symbols used to represent digits in binary number system?
      i) $0,1$ ii) $0,1,2$
      iii) 0 through 8 iv) $1,2$ **1½x10**

UNIT-I

Q.2 a) What is the requirement of a number system? Explain in detail.   **6**
   b) Convert: $(12.456)_8 = (?)_2, (?)_{10}, (?)_{16}$ **9**

Q.3 a) Find the addition of following unsigned binary number:
.   i) $1110+111$ ii) $11011+11011$ **5**
   b) Perform AND, OR & XOR with two binary strings 1011100 and 10100001.   **5**
   c) Explain the concept of Hamming code with the help of an example.   **5**

UNIT-II

Q.4 Explain all the gates with their truth tables.   **15**

Q.5 Simplify the followings using K-map:
   a) $F(A,B,C,D)=\sum 1,5,6,8,9,12$ **7½**

b) $F(X,Y,Z) = \sum 1,2,5,7$ **7½**

UNIT-III

Q.6 a) What do you mean by an instruction cycle? Explain its different phases in detail.

10

b) Explain different types of instructions in detail. **5**

Q.7 Write short notes on:
a) RISC ii) CISC iii) Subroutine calls **5x3**

UNIT-IV

Q.8 Differentiate between:
a) I/O and memory bus
b) Asynchronous and Synchronous date transfer.
c) Isolated and memory mapped I/O. **5x3**

Q.9 Explain the working of a DMA controller and transfer with the help of block diagram.

15

End Semester Examination, May 2015

BCA -Second Semester
WORKSHOP IN EVS (BCA-206)

Time: 3 hrs

Max Marks: **50**

No. of pages: 2

Note: *Attempt* **FIVE** *questions in all;* **taking at least ONE question** *from each Unit.* **Q.1 is compulsory.** *All questions carry equal marks.*

Q.1 Choose the correct option:
a) If waste materials contaminate the source of drinking water which of the following diseases will spread:
i) Scurvy   ii) Typhoid   iii) Malaria   iv) Anaemia
b) Which of the following wastes cannot be decomposed by bacteria to form compost?
i) Kitchen waste   ii) Plastic and polythene bags
iii) Dead plants   iv) Bodies of insects living in the soil
c) When trees are cut, amount of oxygen?
i) Decreases   ii) Increases
iii) Both a and b   iv) Remains same
d) 71% of earth surface is covered with:
i) Land   ii) Air
iii) Water   iv) Coal
e) Acid rain is due to:
i) Combustion of fossil fuels   ii) Oil slick
iii) Oxides of sulphur   iv) Nuclear wars
f) The gas associated with global warming is:
i) CO_2 ii) H_2S
iii) CH_4 iv) SO_2
g) Which of these is biodegradable?
i) Cow dung   ii) Pepsi can
iii) Plastic rubber   iv) CDs
h) Female sterilization inhibits _____ production.
i) Egg   ii) Estrogen
iii) Progesterone   iv) All of the above
i) Bhopal gas tragedy occurred due to:
i) Methane   ii) Phosgene
iii) Methyl isocyanate   iv) Methyl amine
j) Who started the Chipko movement?
i) Kiran Bedi   ii) S.L. Bahuguna
iii) Medha Patkar   iv) None of the above   **1x10**

UNIT-I

Q.2 a) Why do people need to be aware about environmental issues?   **5**
b) Differentiate between renewable and non-renewable sources of energy.   **5**

Q.3 a) Explain why environmental studies is made as mandatory or essential subject in the syllabus.   **5**
b) How can we help and save environment? Explain in detail.   **5**

UNIT-II

Q.4   a) Illustrate how energy flows in an ecosystem with an example.   **5**
       b) What is a food chain? How does a food chain get effected when one of the trophic level is disturbed?   **5**

Q.5   a) Differentiate between producers, consumers and decomposers.   **5**
       b) What is ecological pyramid? Mention atleast two types.   **5**

UNIT-III

Q.6   a) What do you mean by pollution? Name its different types and the two major causes for each type of pollution.   **5**
       b) Mention the major reasons for global warming and climate change.   **5**

Q.7   Write short notes on **any two:**
       a) Unsustainable and sustainable development.
       b) Wasteland reclamation.
       c) Environmental Protection Act.   **5x2**

UNIT-IV

Q.8   a) Illustrate the role of information technology in environment and human health.   **5**
       b) What are the major causes of AIDS? Mention various symptoms and effects of AIDS.   **5**

Q.9   a) How can we control population explosion? Why do we need to control it?   **5**
       b) Explain how increase in human population is causing increase in environment pollution.   **5**

End Semester Examination, May 2015
BCA -Third Semester
MATHEMATICS-II (BCA-301)

Time: 3 hrs   Max Marks: **75**

No. of pages: 2

Note: *Attempt* **FIVE** *questions in all;* **taking at least ONE question** *from each Unit.* **Q.1 is compulsory.** *All questions carry equal marks.*

Q.1   a) If order of A is MXP and order B is PXN then order of AB is _____.

b) If $A = \begin{bmatrix} 5 & 3 & 2 \\ 0 & 4 & 1 \\ 0 & 0 & 3 \end{bmatrix}$ find $|A|$.

c) In how many ways can the letters of the word PRAISE be arranged?

d) Formula of general term in binomial expansion is _____.

e) Define monotonic increasing function with an example.

f) Define supremum and infinimum of set with an example.

g) Find the convergence of sequence $<un> = \dfrac{8n-3}{2n+1}$.

h) What is the limit of a sequence $\{S_n\} = \left\{ \dfrac{1}{n} ; n \in \mathbb{Z}^+ \right\}$

i) Define the criteria for consistency of a system of linear equations.

j) Inverse of every square matrix, if it exists is unique **(True/False)**.   **1½x10**

UNIT-I

Q.2   a) Verify that $A(B+C) = AB + BC$ where $A = [1\ 2]$; $B = \begin{bmatrix} 1 & 2 & 3 \\ 0 & 4 & 5 \end{bmatrix}$ $and\ C = \begin{bmatrix} 1 & 0 & 1 \\ 2 & 3 & 0 \end{bmatrix}$.

8

b) Evaluate: $6C_1 + 6C_2 + 6C_3 + 6C_4 + 6C_5 + 6C_6$.   **7**

Q.3   a) Find the coefficient of $x^4\ in\ \left(x^4 + \dfrac{1}{x^3} \right)^{15}$.   **8**

b) Out of 7 consonants and 4 vowels, how many words of 3 consonants and 2 vowels can be formed?   **7**

UNIT-II

Q.4   a) Prove that all real numbers in the interval [0 1] is uncountable.   **7**

b) Find the least upper bound and greatest lower bound of the followings:

i) $\{x : -5 < x < 2\}$ ii) $\left\{ \dfrac{1}{5n} ; n \in \mathbb{Z}, n \neq 0 \right\}$

iii) $\left\{ x : x = 1 + \dfrac{1}{n}, n \in N \right\}$ iv) $\left\{ x = 1 - \dfrac{1}{n} ; x \in N \right\}$ **2x4**

Q.5   a) Prove that the union of 2 countable sets is countable.   **8**

b) Prove that union of an arbitrary family of open sets is an open set.   **7**

UNIT-III

Q.6   a) State and prove Cauchy's general principle of convergence.   **8**

b) Prove that a monotonically increasing sequence $<U_n>$ bounded above converges to its least upper bound. **7**

Q.7 a) Discuss the convergence of the sequence $<un>$ where $<un>=\dfrac{2n-7}{3n+2}$. **8**

b) State and prove comparison test of 5th form of series of numbers. **7**

UNIT-IV

Q.8 a) Show that $\dfrac{x}{x+1} < \log(1+x) < x : x > 0$. **8**

b) Expand a^x and e^x in power of x by Maclaurin's theorem. **7**

Q.9 a) Evaluate $\lim\limits_{x \to 0} \dfrac{1+\sin x - \cos x + \log(1-x)}{x \tan^2 x}$. **7**

b) Evaluate $\lim\limits_{x \to a^+} \dfrac{\log(x-a)}{\log(e^x - e^a)}$ by L' Hospital rule. **8**

End Semester Examination, May 2015
BCA -Third Semester
MATHEMATICS-II (BCA-301)

Time: 3 hrs   Max Marks: **75**

No. of pages: 2

Note: *Attempt* **FIVE** *questions in all;* **taking at least ONE question** *from each Unit.* **Q.1 is compulsory.** *All questions carry equal marks.*

Q.1   a) Construct a 3×3 matrix whose elements are $a_{ij} = i + j$

b) Define upper triangular matrix with an example.

c) Expand $(x + y)^2$ by binomial expansion.

d) Define Lagrange's mean value theorem.

e) What are countable set? Explain with the help of an example.

f) Define set bounded above.

g) Find $x + 1_{P_3}$

h) What is neighborhood of a point?

State whether TRUE or FALSE:

i) A set of all positive real numbers is not bounded above.

j) A finite set has no limit point.   **1½x10**

UNIT-I

Q.2   a) Define the following terms with an example:
i) Transpose of matrix   ii) Symmetric matrix   iii) Skew symmetric matrix **9**

b) For the 2 matrices A and B verify that $(AB)^T = B^T . A^T$ where

$$A = \begin{bmatrix} 0 & -1 & 2 \\ 3 & 0 & -1 \end{bmatrix} \quad \text{and} \quad B = \begin{bmatrix} 1 & -1 \\ 0 & 2 \\ 5 & 0 \end{bmatrix}$$ **6**

Q.3   a) How many different words can be formed with the letters of the word BHARAT?
i) In how many of these B and H are never together.
ii) How many of these begin with B and end with T.   **6**

b) For the matrix $A = \begin{bmatrix} 3 & 1 \\ 7 & 5 \end{bmatrix}$, find x and y so that $A^2 + xI = yA$. Hence find A^{-1}.**9**

UNIT-II

Q.4   a) Show that union of two countable sets is countable.   **10**

b) Show that union of an arbitrary family of open sets is an open set.   **5**

Q.5   a) Show that union of a denumerable collection of denumerable sets is denumerable.
7

b) Find the supremum and infimum, if exist of the following:

i) $\{x : -5 < x < 3\}$ ii) $\{x : x = 4^n, n \in -N\}$

iii) $\left\{ 1, \frac{1}{2}, \frac{1}{3}, \frac{1}{4} .... \right\}$ iv) Open interval $(0, 1)$ **8**

UNIT-III

Q.6　a) Show that a sequence converges if and only if it is a Cauchy's sequences　　**10**

b) Show that the series $\dfrac{1}{3}+\dfrac{1}{3^2}+\dfrac{1}{3^3}$ .... converges.　　**5**

Q.7　State and prove Cauchy's Root Test.　　**15**

UNIT-IV

Q.8　a) Evaluate $\lim\limits_{x\to\infty} x\tan\dfrac{1}{x}$　　**7**

b) Show that $\dfrac{x}{x+1}<\log(1+x)<x;\ x>0$　　**8**

Q.9　a) Expand e^{2x} by Maclaurin's theorem.　　**8**

b) Evaluate $\lim\limits_{x\to a}\dfrac{\log(x-a)}{\log\left(e^x-e^a\right)}$ by L'Hospital's Rule.　　**7**

End Semester Examination, May 2015

BCA - Third Semester

OBJECT ORIENTED DESIGN AND PROGRAMMING (BCA-302)

Time: 3 hrs   Max Marks: **75**

No. of pages: 2

Note: *Attempt* **FIVE** *questions in all;* **taking at least ONE question** *from each Unit.* **Q.1 is compulsory.** *All questions carry equal marks.*

Q.1 a) The major goal of inheritance in C++ is:
  i) To facilitate the conversion of data types.
  ii) To help modular programming.
  iii) To facilitate the reusability of a code.
  iv) To extend the capabilities of a class.

 b) Which of the following is not an ODP feature in C++?
  i) Inheritance   ii) Polymorphism
  iii) Objects   iv) Exceptions

 c) A class can have many methods with the same name, as long as the number of parameters are different. This is known as:
  i) Method overloading   ii) Method invocating
  iii) Method overriding   iv) Method labeling

 d) When a function is defined inside a class, this function is called:
  i) Inside function   ii) Class function
  iii) Inline function   iv) Interior function

 e) The do while loop is ideal for loop structures that:
  i) Repeat some process a fixed number of times.
  ii) Must execute some process atleast one time.
  iii) Must check the loop condition before the loop body is executed.
  iv) Do all of the above.

 f) What will happen when defining the enumerated type?
  i) It will not allocate memory.
  ii) It will allocate memory.
  iii) It will not allocate memory to its variables.
  iv) None of the above.

 g) The friend function are used in situations where:
  i) We want to exchange data between classes.
  ii) We want to have access to unrelated classes
  iii) Dynamic binding is required.
  iv) We want to create versatile overloaded operators.

 h) Which of the following operations could not he overloaded?
  i) i) Size of   ii) +   iii) +=   iv) ::

 i) Which is used to create a pure virtual function?
  i) $ ii) =0   iii) &   iv) !

 j) Which keyboard is used to handle an exception?
  i) Try   ii) Throw   iii) Catch   iv) None of the above
                     1½x10

UNIT-I

Q.2 Explain the basic concepts of object oriented programming.   **15**

Q.3   Describe how data is shared by function in a procedure oriented programs.   **15**

UNIT-II

Q.4   Describe data types in C^{++} with details.   **15**

Q.5   Explain the function classification with the passing of arguments.   **15**

UNIT-III

Q.6   What is a constructor? Explain types of constructor with examples.   **15**

Q.7   Give a programming example that overloads == operator with its use.   **15**

UNIT-IV

Q.8   What is a virtual function? Write rules for a virtual function. Explain with an example.

15

Q.9   Explain in detail about exception handling in C^{++}.   **15**

End Semester Examination, May 2015
BCA - Third Semester
DATABASE SYSTEMS (BCA-303)

Time: 3 hrs

Max Marks: **75**
No. of pages: 2

Note: *Attempt* **FIVE** *questions in all;* **taking at least ONE question** *from each Unit.* **Q.1 is compulsory.** *All questions carry equal marks.*

Q.1   Multiple choice questions:
   a) The disadvantages of traditional file system is:
      i) Data redundancy   ii) Data inconsistency
      iii) Poor data control   iv) All of the above
   b) The responsibilities of DBA are:
      i) Deciding users   ii) Backup
      iii) Both i) and ii)   iv) None of the above
   c) An attribute which does not identify data uniquely is called:
      i) Secondary key   ii) Primary key
      iii) Foreign key
   d) Which is a free formatted language?
      i) SQL   ii) Relational algebra
      iii) Relational calculus
   e) A transaction must be in following states:
      i) Active state   ii) Partially committed
      iii) Failed   iv) All of the above

   State whether TRUE or FALSE:
   f) A distributed database system is a collection of sites connected through network.
   g) Third normal form is also known as PJNF.
   h) SQL offers command interface to write queries.
   i) The SQL DML provides commands for defining the relations, deleting the relations and modifying the existing relation schemes.
   j) The relational model was discovered by Dr, E.F. Codd.   **1½x10**

UNIT-I

Q.2   What is data model? Explain the data structure of relational data model. Also, differentiate between Network and an Hierarchical data model.   **15**

Q.3   Define the following with an example.
   a) Entity   b) Attribute   c) Foreign key   d) Candidate key
   e) Alternate key   f) Domain   **3x5**

UNIT-II

Q.4   Explain the term 'relational algebra' and various operations performed in it. Give example of each.   **15**

Q.5   Give the format and purpose of following with examples:
   a) Alter table   b) Group by clause   c) Length   d) Distinct
   e) Having clause   **3x5**

UNIT-III

Q.6   Define normalization? Explain and define 1NF, 2NF, 3NF by giving suitable examples for each.   **15**

Q.7   Explain: a) Functional dependency
                   b) BCNF
                   c)   4 NF   **5x3**

UNIT-IV

Q.8   What do you mean by security of database? Explain various ways of database security and recovery procedures in brief.   **15**

Q.9   What is meant by query processing? Discuss various general strategies for query processing? Also, discuss query optimization through a suitable example.   **15**

End Semester Examination, May 2015

BCA - Third Semester

BUSINESS ORGANIZATION AND PRINCIPLES OF MANAGEMENT (BCA-304)

Time: 3 hrs

Max Marks: **75**

No. of pages: 2

Note: *Attempt* **FIVE** *questions in all;* **taking at least ONE question** *from each Unit.* **Q.1 is compulsory.** *All questions carry equal marks.*

Q.1 **Fill in the blanks:**
   a) One of the external environment factor that influence management is _____.
   b) There are _____ types of degree of delegations.
   c) LPG stands for liberalization, _____ and globalization.
   d) All levels of management between the supervisory level and the top level of the organization are termed _____.
   e) _____ is the ability to translate knowledge into action that results in desired performance.

Choose the correct option:
   f) Management is the combination of:
      i) Art   ii) Science   iii) Profession   iv) Above three
   g) Which of the following is false about the characteristic of modern organizations?
      i) Have little global focus.
      ii) Face simultaneous pressure for stability and change.
      iii) Some employees will find such organizations stressful.
      iv) Use the internal to manage external interactions.
   h) Decision making is a primary part of the managerial process **(True/False)**
   i) Define an informal organization.
   j) Name the physical aspect of an enterprise.   **1½x10**

UNIT-I

Q.2 What do you mean by a business? How is it different from a profession? Explain with an example.   **15**

Q.3 What factors affect the business system? Explain their role in context of the objectives and social responsibilities of a business.   **15**

UNIT-II

Q.4 Write short notes on the following *(any three):*
   a) Organization as a system.
   b) Stress as a motivator.
   c) Decentralization.
   d) Objectives of organizational behavior.   **15**

Q.5 Explain the behavioural models of decision making in an organization.   **15**

UNIT-III

Q.6 What is the concept of universality of a management? Give arguments for and against this concept. **15**

Q.7 "Management process is considered to consist of certain functions". Explain various functions in a logical order. **15**

UNIT-IV

Q.8 Why human resource management is essential for an organization? How is it different from human resource development? **15**

Q.9 What are the sources available to a business firm for recruiting its employees? Describe the merits and demerits of various sources. **15**

End Semester Examination, May 2015

BCA - Fourth Semester
E-COMMERCE (BCA-401)

Time: 3 hrs   Max Marks: **75**

No. of pages: 1

Note: *Attempt **FIVE** questions in all; **taking at least ONE question** from each Unit. **Q.1 is compulsory.** All questions carry equal marks.*

Q.1 **Answer the following questions:**
a) What does B2C stands for?
b) Give atleast three examples of websites which provide facility for cyber cash.
c) Name two groups in which products of e-money can be categorized.
d) What does EFT stands for?
e) What is the stored value of a smart card?
f) Name three categories of the intellectual property over the internet.
g) What is an ISP?
Fill in the blanks:
h) 'e-business' is any business that is empowered by an _____.
i) The e-check system is an _____ of the paper-check system.
j) _____ is the number that identifies a machine on the internet.   **1½x10**

UNIT-I

Q.2 What is an 'e-Commerce'? What are the advantages and disadvantages of engaging in e-Commerce activity to identify new applications in business?   **15**

Q.3 Write short notes on the following:
a) Implications of IT on e-business strategy.   **8**
b) Porter's value chain model.   **7**

UNIT-II

Q.4 What is business-to-business e-commerce? Also discuss three models of B2B e-commerce.   **15**

Q.5 Explain the following:
a) EDI.   **8**
b) Just-in-time delivery.   **7**

UNIT-III

Q.6 What are the main differences between a credit card and a debit card? Why is one type of card favored over the other?   **15**

Q.7 Explain the following:
a) e-money   **7**
b) Legal, ethical and other public policy issues.   **8**

UNIT-IV

Q.8 Identify the key steps to setup an infrastructure for the e-commerce. Which step is most critical and Why?   **15**

Q.9 Explain the following:
   a) Virtual communities. **7**
   b) The future of e-commerce. **8**

End Semester Examination, May 2015

BCA - Fourth Semester
OPERATING SYSTEM (BCA-402)

Time: 3 hrs   Max Marks: **75**

No. of pages: 1

Note: *Attempt* **FIVE** *questions in all;* **taking at least ONE question** *from each Unit.* **Q.1 is compulsory.** *All questions carry equal marks.*

Q.1   **Fill in the blank with appropriate word:**
a) An operating system is a _____ software.
b) System calls are _____ instructions.
c) Long term scheduler is also called as _____.
d) The measure used to control thrashing is _____.
e) A _____ is a collection of related information that is stored on secondary storage.

State whether True or False:
f) A file has a certain defined structure according to its type.
g) External fragmentation is the cause of allocating more space than required by the process.
h) The running processes in execution state may be suspended because of I/O or because of preemption.
i) Banker's algorithm is used to detect deadlock.
j) MS-DOS supports multiprogramming.   **1½x10**

UNIT-I

Q.2   a) Discuss advantages of multiprogramming systems.
b) List the differences between timesharing and multiprogramming systems.
c) What is spooling?   **5x3**

Q.3   a) What is a Kernal? Explain its main functions.   **7**
b) What is the purpose of command interpreter? Why is it usually separated from the Kernal?   **8**

UNIT-II

Q.4   Compare and contrast FCFS and SJF scheduling algorithms with the help of suitable examples.   **15**

Q.5   a) Define a process with examples.   **5**
b) Differentiate between long term, short term and medium schedulers with their appropriate examples.   **10**

UNIT-III

Q.6   Discuss the technique of paging in detail.   **15**

Q.7   Discuss:
a) Swapping   b) Virtual memory.   **15**

UNIT-IV

Q.8   a) Explain different types of file formats. Also give examples.   **7**

b) Explain various methods for free space management. Illustrate it with an example.
8

Q.9   Discuss FCFS, SCAN and CSCAN disk scheduling algorithm by taking a suitable example.

End Semester Examination, May 2015
BCA -Fourth Semester
WEB DESIGNING AND INTERNET APPLICATIONS (BCA-403)

Time: 3 hrs   Max Marks: **75**

No. of pages: 2

Note: *Attempt* **FIVE** *questions in all;* **taking at least ONE question** *from each Unit.* **Q.1 is compulsory.** *All questions carry equal marks.*

Q.1   a) IP addresses are converted into:
      i)   Binary string   ii)   Alphanumeric string
      iii) Hierarchy of domain   iv) Hexadecimal string
   b) The tag used in HTML to link other URL is:
      i)   <A>   ii)   <H>
      iii) <U>   iv) <L>
   c) A web page is located using:
      i)   Universal record linking.
      ii) Universal resource locator.
      iii) Universal record locator.
   d) Which tag is used to arrange tags in paragraphs?
      i)   <par>   ii)   <paragraph>
      iii) <P>   iv) <a>
   e) HTML stands for:
      i)   Hypertext making links   ii)   Hypertext markup language
      iii) Higher textual making of links   iv) Hyper text mixer of links
   f) CSS stands for:
      i)   Control stylesheets   ii)   Creative stylesheets
      iii) Cascading stylesheets   iv) None of above
   g) Which of following is not scripting language?
      i)   HTML   ii)   XML
      iii) Postscript   iv) Javascript
   h) We use tag within:
      i)   <head> only   ii)   <title>
      iii) <head> and <1 body>   iv) <javascript>
   i) Javascript is _____ side scripting language.
      i)   Server   ii)   Browser
      iii) ISP   iv) None of the above
   j) Which of the following HTML code is valid?
      i)   <font colour = "red">   ii)   <font color = "red">
      iii) <red><font>   iv) All of the above   **1½x10**

UNIT-I

Q.2   Write short notes on:
   a) SMTP   b) Usenet   c) URL   **15**

Q.3   Write short notes on:
   a) What is internet? What are its application areas?   **10**
   b) Write a short note on internet security.   **5**

UNIT-II

Q.4   a) Explain the structure of HTML.
       b) Differentiate external and internal linking.
       c) Explain image tag and its attributes.   **5x3**

Q.5   Create an admission form in HTML using buttons, textbox, radio button, checkbox and listbox with all attributes.   **15**

UNIT-III

Q.6   a) What are frames? Insert the four web pages in the frames using appropriate examples.   **10**
       b) Differentiate between <Address> and <Blockquote> tags.   **5**

Q.7   a) Explain various character formatting tags in HTML.   **10**
       b) Differentiate between colspan, rowspan, cellspacing and cellpadding in table.   **5**

UNIT-IV

Q.8   What are cascading stylesheets? Explain the types of stylesheets in detail.   **15**

Q.9   a) Write a program in javascript for swapping of two images.   **5**
       b) Differentiate between prompt(), alert() and conrfirm() boxes.   **10**

End Semester Examination, May 2015
BCA -Fourth Semester
BUSINESS COMMUNICATION-II (BCA-404)

Time: 3 hrs   Max Marks: **75**

No. of pages: 2

Note: *Attempt* **FIVE** *questions in all;* **taking at least ONE question** *from each Unit.* **Q.1 is compulsory.** *All questions carry equal marks.*

Q.1   Choose the correct option:
   a) Generally speaking in business we communicate:
      i) Only to inform   ii) To both persuade and inform
      iii) Only to persuade   iv) Only to entertain
   b) Effective communication is essentially a:
      i) Two-way process   ii) Three-way process
      iii) Both a one-way and a two-way process
      iv) One way process.
   c) Speakers usually experience difficulty in ensuring that the message is:
      i) Conveyed precisely, understood correctly, and acted upon promptly and as desired.
      ii) Conveyed precisely.
      iii) Understood correctly.
      iv) Acted upon promptly and as desired.
   d) The purpose of public relations is:
      i) To sell the company's products.
      ii) To communicate with shareholders.
      iii) To project a favorable image of the company among various publics.
      iv) To communicate during a crisis.
   e) Which of the following is not an indication of active listening?
      i) Egocentrism.
      ii) Engaging in conversation with the speaker.
      iii) Taking notes.
      iv) Reconstructing the information.
   f) An impromptu speech means:
      i) A prepared speech delivered without any supporting aids.
      ii) A speech delivered without any preparation.
      iii) A speech delivered while referring to notes.
      iv) A speech delivered by reading from notes.
   g) "A meeting without an agenda is like a ship without a destination". This means that the meeting:
      i) Has no goal   ii) Lacks leadership
      iii) Is inconclusive   iv) Is disorganized
   h) A common method of measuring attitudes is by using:
      i) In-depth interviews.
      ii) Observing people's behavior.
      iii) Semantic differential scales.
      iv) A lie detector.
   i) The centrality of an attitude reflects:
      i) A person's degree of negative or positive feelings about an object.
      ii) The extent to which an attitude is related to a person's other attitudes.

iii) The extent to which an attitude is a part of a person's concept of self.
iv) The attitude's resistance to change.

j) Reena is twice as old as Sunita. Three years ago, she was three times as old as Sunita. How old is Reena now?
   i) 6 years   ii) 12 years
   iii) 14 years   iv) 16 years   **1½x10**

UNIT-I

Q.2 a) Differentiate between verbal and non-verbal communication.   **8**
     b) Explain the term emotional intelligence. How is it helpful in extracting best form employees?   **7**

Q.3 a) What are the different levels of communication? Explain in detail.   **8**
     b) "It is very important to be a team player". Elaborate.   **7**

UNIT-II

Q.4 a) How being an optimist different from being a pessimist? Elaborate.   **8**
     b) Explain an incident where being optimist has helped you in real life.   **7**

Q.5 Solve the followings:
     a) If a 36 inch long strip cloth shrinks to 33 inches after being washed, how many inches long will the same strip remain after washing if it were 48 inches long?
     b) The price of Maruti car rises by 30% while the sales of the car come down by 20%. What is the percentage change in total revenue?
     c) The total of the ages of Amar, Akbar and Anthony is 80 years. What was the total of their ages five years ago?
     d) A pineapple costs Rs.7 each. A watermelon costs Rs. 5 each. X spends Rs. 38 on these fruits. The no. of pineapple purchased are _____?
     e) What is the product of all the numbers in the dial of a telephone?   **3x5**

UNIT-III

Q.6 a) What are the key considerations while designing a professional presentation?   **8**
     b) "A presentation is prepared based on understanding of audience and the speaking occasion". Elaborate.   **7**

Q.7 a) Why do we need brainstorming before designing a presentation? How does it improve the standard of presentation?   **8**
     b) How developing a logical sequence for your message leaves a better impact on the audience? Explain.   **7**

UNIT-IV

Q.8 a) "Interviews play a crucial role for the employee and the employer". Explain.   **8**
     b) List the various documents that you need to carry while going for an interview.   **7**

Q.9 a) What are the different types of interviews conducted in an organization? Which type of interview is best suited when the company is situated abroad?   **8**
     b) How performance appraisal plays a very important role in the growth of an individual in an organization?   **7**

End Semester Examination, May 2015
BCA -Fifth Semester
INFORMATION AND COMMUNICAION TECHNOLOGY (BCA-501)

Time: 3 hrs Max Marks: **75**

No. of pages: 1

Note: *Attempt* **FIVE** *questions in all;* **taking at least ONE question** *from each Unit.* **Q.1 is compulsory.** *All questions carry equal marks.*

Q.1 a) Fill in the blanks:
   i) Tele-working mean _____.
   ii) The digital divide is a _____.
   iii) EFTPOS is _____.
   iv) A cyber crime is _____.
   v) Full form of EDI is _____. **1½x5**
   b) State four methods of protecting the security of a computer network. **2**
   c) Name three categories of cyber criminals. **1½**
   d) What is the network service which may be improved through the use of network audit software? **2**
   e) Define digital signature. **2**

UNIT-I

Q.2 Explain Bluetooth technology. Compare Bluetooth with Wi-Fi. Are the two terms similar to each other? If they are different then list the points of difference. **15**

Q.3 How can we maintain address book on the internet? List the various advantages of maintaining address book in a correct order. **15**

UNIT-II

Q.4 Is there any difference between Wiki and Wikipedia? Write down the steps to upload an article in Wikipedia. Who maintain Wikipedia? **15**

Q.5 Explain the concept of E-mail. State the requirement of having an email. State the advantages and disadvantages of email. List some email supporting websites and softwares. **15**

UNIT-III

Q.6 Discuss the followings:
   a) Phishing
   b) Software privacy
   c) Copywriting **5x3**

Q.7 "A network service may be improved through the use of network audit software".
   a) Explain why network audit software is used? **8**
   b) Give four items of data that may be recorded by the network audit software. **7**

UNIT-IV

Q.8 Give a detailed note on control applications like turtle graphics, control of flights, buzzers, motors, burglar alarms, automatic washing machines and microwaves. **15**

Q.9   Discuss the ICT application in booking system and manufacturing industry.   **15**

End Semester Examination, May 2015

BCA – Fifth Semester

SOFTWARE ENGINEERING (BCA-502)

Time: 3 hrs   Max Marks: **75**

No. of pages: 2

Note: *Attempt **FIVE** questions in all; **taking at least ONE question** from each Unit. **Q.1 is compulsory.** All questions carry equal marks.*

Q.1   Multiple choice questions:
  a) Software mistakes during coding are known as:
     i) Failures.   ii) Defects.
     iii) Bugs.   iv) Errors.
  b) Spiral model was developed by:
     i) Bev Littlewood.   ii) Berry Boehm.
     iii) Roger Pressman.   iv) Victor Basili.
  c) If requirements are frequently changing which model is to be selected?
     i) Waterfall.   ii) Prototyping model.
     iii) Spiral model.   iv) Iterative enhancement model.
  d) Software engineering approach is used to achieve:
     i) Better performance of hardware
     ii) Error free software.
     iii) Reusable software.
     iv) Quality software product.
  e) Cost estimation for a project may include:
     i) Software cost.   ii) Hardware cost.
     iii) Personnel costs   iv) All of the above.
  f) Temporal cohesion means:
     i) Cohesion between temporary variables.
     ii) Cohesion between local variables.
     iii) Cohesion with respect to time.
     iv) Coincidental cohesion.
  g) The relationship of data elements in a module is called:
     i) Coupling.   ii) Cohesion.
     iii) Modularity   iv) None of the above.
  h) During validation:
     i) Process is checked
     ii) Product is checked
     iii) Developers performance is evaluated
     iv) The customer checks the product.
  i) Alpha testing is done by:
     i) Customer.   ii) Tester.
     iii) Developer.   iv) All of the above.
  j) Cyclomatic complexity is denoted by:
     i) $V(G)=e-n+2P$.
     ii) $V(G)=\pi+1$.
     iii) $V(G)=$number of regions of the graph
     iv) All of the above.   **1½x10**

UNIT-I

Q.2 Discuss prototype model. What is the effect of designing a prototype on the overall cost of a software project? What are the advantages of developing prototype of a system? **15**

Q.3 a) Define the term software engineering. Discuss the techniques of software engineering. **8**
b) What is more important: Product or process? Justify the answer. **7**

UNIT-II

Q.4 a) Consider a project with the following functional units:
No. of user inputs: 50
No. of user outputs: 40
No. of user enquiries: 35
No. of user files: 06
No. of external interfaces: 04
Assume all complexity adjustment factors and weighting factors are average. Compute function points for the project. **8**
b) Write a short note on PERT. **7**

Q.5 Write short notes on the following:
a) LOC.
b) Token count.
c) SRS. **5x3**

UNIT-III

Q.6 Discuss COCOMO model with their types in detail. **15**

Q.7 a) Differentiate between coupling and cohesion. **8**
b) How many types of coupling are available? What is the effect of coupling on effective modular design? **7**

UNIT-IV

Q.8 a) Define error, bug, fault, defect and failure. **8**
b) What is importance of testing? **7**

Q.9 a) Describe equivalence class partitioning method. Compare this with boundary value analysis technique. **8**
b) Why does software testing need extensive planning? **7**

End Semester Examination, May 2015

BCA -Fifth Semester
COMPUTER GRAPHICS (BCA-503)

Time: 3 hrs

Max Marks: **75**

No. of pages: 2

Note: *Attempt* **FIVE** *questions in all;* **taking at least ONE question** *from each Unit.*
Q.1 is compulsory. *All questions carry equal marks.*

Q.1   a)   _____ parameter is used in circle function.
      i) 3.   ii) 2.   iii) 4.   iv) None of the above.
    b)   _____ function is used to set the color of an image.
      i) Setbk color.   ii) Set color.
      iii) Floodfill.   iv) None of the above.
    c)   There is _____ type of projection.
      i) 3.   ii) 1.   iii) 7.   iv) 4.
    d)   The transformation in which an object can be rotated about origin as well as an arbitrary point is called as:
      i) Translation.   ii) Scaling.
      iii) Rotation.   iv) All of the above.
    e)   Two consecutive scaling transformation t1 and t2 are:
      i) Additive.   ii) Subtractive.
      iii) Multiplicative.   iv) None of the above.
    f)   Some common form of clipping includes:
      i) Curve clipping.   ii) Polygon clipping.
      iii) Point clipping.   iv) All of the above.
    g)   The transformation that produces a parallel mirror image of an object is called:
      i) Reflection.   ii) Shear.
      ii) Rotation.   iv) Scaling.
    h)   The flat panel displays are _____ in appearance.
      i)   flat.   ii) Curve.
      iii) Both i) and ii).   iv) None.
    i)   The speed of printing in inkjet printer is:
      i) Fast.   ii) Slow.
      iii) Neither fast nor slow.   iv) None of these.
    j)   CRT stands for:
      i) Cathode Ray Tube.   ii) Cannon Ray Tube.
      iii) Check Ray Tube.   iv) None of the above.   **1½x10**

UNIT-I

Q.2   What do you mean by computer graphics? Explain different types of computer graphics along with its architecture.   **15**

Q.3   a) Explain input-output devices in details.   **8**
    b) Explain the different methods of color generation in details.   **7**

UNIT-II

Q.4   Explain the DDA algorithm for a line drawing. What would be the intermediate point to draw a line between (2, 6) and (8, 12)?   **15**

Q.5 What do you mean by transformation? Explain different types of transformation with examples. **15**

UNIT-III

Q.6 Derive the transformation matrix to scale a unit cube twice uniformly w.r.t. origin. Find the coordinate of transformed cube. **15**

Q.7 a) Differentiate between cavalier and cabinet projection. Why cabinet projection is more realistic than cavalier projection? **10**

b) What do you mean by 3D? How is it different from 2D? Explain through an example. **5**

UNIT-IV

Q.8 Explain the use of the following graphic functions with their syntax and examples:

a) arc()   b) getbkcolor()
c) initgraph()   d) detectgraph()
e) cleardevice()   f) closegraph()
g) setfillstyle()   h) outtext()
i) rectangle()   j) Fillpoly()   **15**

Q.9 Write a program to generate /design a solar system. **15**

End Semester Examination, May 2015
BCA -Fifth Semester
NUMERICAL ANALYSIS AND STATISTICS (BCA-504)

Time: 3 hrs

Max Marks: **75**

No. of pages: 2

Note: *Attempt* **FIVE** *questions in all;* **taking at least ONE question** *from each Unit.* **Q.1 is compulsory.** *All questions carry equal marks.*

Q.1
a) Write down formula of Regula-Falsi method for solving non-linear equations.
b) Using Newton Raphson method construct a formula to find square root of a number N.
c) What do you mean by initial value problem?
d) Write down the relation between the operators E and ∇.
e) Write down Bessel's interpolation formula.
f) Define divided differences.
g) State centered formula of order $O(h^2)$ for numerical differentiation.
h) Write down expression for Simpsons three-eighth rule for numerical integration.
i) What is binomial distribution for a variate X?
j) Calculate $P(-1 \le z \le 1)$ for standard normal variate z. **1½x10**

UNIT-I

Q.2
a) Derive an iteration formula to solve $x^3 + x^2 - 1 = 0$ and hence solve the equation. **8**
b) Derive Newton-Raphson Formula to solve non-linear equations. **7**

Q.3
a) Solve the initial value problem:
$$\frac{dy}{dx} = \frac{y-x}{y+x}, y(0) = 1$$
For $x = 0.1$ by Euler's method. **7**
b) Apply Runge-Kutta method to solve $\frac{dy}{dx} = x^2 + y^2, y(0) = 1$.
For $x = 0.1$. **8**

UNIT-II

Q.4
a) The area A of a circle of radius d is given for the following values:

d	80	85	90	95	100
A	5026	5674	6362	7088	7854

Calculate the area of a circle of radius 105. **7**
b) Using the table given below and Newton's Divided difference formula, find $f(x)$ as a polynomial in x:

x	-1	0	3	6	7
$f(x)$	3	-6	39	822	1611

8

Q.5
a) Using Lagrange's formula, find the interpolating polynomial for $(0,2), (1,3), (2,12)$ and $(5,147)$. **9**

b) Construct Newton's divided difference table for the data:

x	-4	-1	0	2	5
y	1245	33	5	9	1335

6

UNIT-III

Q.6 a) Find the least square fit $y = a + bx + cx^2$ for the data:

x	-3	-1	1	3
y	15	5	1	5

9

b) Using centered formula of order (h^4), Find $f'(1.4)$ from the following table:

x	1.2	1.3	1.4	1.5	1.6
$f(x)$	1.5095	1.6984	1.9043	2.1293	2.3756

6

Q.7 a) Using Simpson's one-third rule, Compute $\int_0^1 \frac{1}{1+x} dx$.

taking $h = 0.125$. **7½**

b) A river is 80 feet wide. The depth y in feet of the river at a distance x from one bank is given by the following table:

x	0	10	20	30	40	50	60	70	80
y	0	4	7	9	12	15	14	8	3

Find approximately the area $A = \int y\,dx$ of the cross section of the river. **7½**

UNIT-IV

Q.8 a) A coin is tossed five times. What is the probability of getting at least three heads?

7

b) Fit a Poisson distribution to the following data:

x	0	1	2	3	4
f	122	60	15	2	1

8

Q.9 Fit a normal distribution to the following data and test the goodness of fit:

x	4	6	8	10	12	14	16	18	20	22	24
y	1	7	15	22	35	43	38	20	13	5	1

15

End Semester Examination, May 2015

BCA – Sixth Semester
JAVA PROGRAMMING (BCA-601A)

Time: 3 hrs   Max Marks: **75**

No. of pages: 2

Note: *Attempt **FIVE** questions in all; **taking at least ONE question** from each Unit. **Q.1 is compulsory.** All questions carry equal marks.*

Q.1   Multiple choice questions:
   a) The overloaded constructors in a class will have:
      i) different names   ii) different parameter lists
      iii) different return types   iv) None of the above
   b) To create our own exception class, we have to:
      i) create an own try and catch block   ii) extend exception class
      iii) use throws keyword   iv) use finally keyword
   c) Which keyword is used to monitor statement for execution?
      i) try   ii) catch
      iii) throw   iv) throws
   d) Which method is called first by an applet?
      i) start   ii) run()
      iii) init()   iv) paint()
   e) To display text on applet, _____ method is used.
   f) Java always provides a default constructor to a _____.
   g) What is Garbage collection in Java?
   h) Why do we use array as a parameter in main method?
   i) What is package?
   j) What is method overriding?   **1½x10**

UNIT-I

Q.2   a) What is the difference between Java, C and C++?
   b) Explain the importance of JVM in Java programming.
   c) What is stand alone application?   **5x3**

Q.3   a) Discuss the structure of Java program.   **7**
   b) Discuss the various tools available in JDK? How do they help in application development?   **8**

UNIT-II

Q.4   a) Write a program in Java to find the addition and subtraction of two matrices.
                                                           9
   b) Compare: a) break and continue   b) while and do-while.   **6**

Q.5   a) What is an array? Give the format and purpose of arrays in Java.   **10**
   b) Write a program in Java to find sum and reverse of n digit numbers.   **5**

UNIT-III

Q.6   a) What are constructors used for? Can constructors be overloaded? Write a program in support of your answer.   **9**

b) What are classes and objects? How does classes accomplish data hiding? Explain **6**

Q.7 a) What is the difference between final, finalize and finally() in Java? **6**

b) Discuss Java error handling mechanism with an example. What is the difference between checked and unchecked exception handling in Java. **9**

UNIT-IV

Q.8 a) What is an interface? How is it different from an abstract class? Can an abstract class have constructors? Explain. **9**

b) Define the following for packages:
   i) -Public - private - protected
       -import **6**

Q.9 a) What is the difference between shadowing and overriding in C#.net?

b) Write a short note on Delegation Event Model.

c) What are applets? Differentiate them from application. **5x3**

End Semester Examination, May 2015

BCA – Sixth Semester

DATA COMMUNICATION AND NETWORKING (BCA-602)

Time: 3 hrs   Max Marks: **75**

No. of pages: 2

Note: *Attempt **FIVE** questions in all; **taking at least ONE question** from each Unit. **Q.1 is compulsory.** All questions carry equal marks.*

Q.1   a) A tree topology is a variation of a _____ topology.
  i) Mesh   ii) Star
  iii) Bus   iv) Ring
  b) A television broadcast is as example of _____ transmission.
  i) Simplex   ii) Half duplex
  iii) Full duplex   iv) Automatic
  c) ARQ stands for _____.
  i) Automatic repeat quantization   ii) Automatic repeat request
  iii) Automatic retransmission request   iv) Acknowledge repeat request
  d) DNS is the abbreviation of:
  i) Dynamic name system   ii) Domain name system
  iii) Dynamic network system   iv) Domain network service
  e) _____ control refers to methods of error detection and correction.
  i) Flow   ii) Error
  iii) Transmission   iv) None of the above
  f) Frame relay provides _____ connections.
  i) PVC   ii) SVC
  iii) DLCI   iv) Both i) and ii)
  g) Routers functions is the _____ layer.
  i) Physical   ii) Data link
  iii) Network   iv) Transport
  h) In FTP, when we _____, it is copied from the client to the server.
  i) Retrieve a file   ii) Store a file
  iii) Retrieve a list   iv) None of the above
  i) _____ is the protocol suite for the current internet.
  i) TCP/IP   ii) NCP
  iii) UNIX   ii) ACM
  j) Which of the following is not in OSI model?
  i) Physical layer   ii) Internet layer
  iii) Network layer   iv) Transport layer   **1½x10**

UNIT-I

Q.2   What do you mean by sampling? Explain PAM and PCM in sampling with a proper diagram.   **15**

Q.3   Differentiate the following:
  a) Analog and digital signal.
  b) Bus and ring topology.
  c) Bitrate and band rate.   **5x3**

UNIT-II

Q.4   Differentiate between OSI model and TCP/IP model. Explain network layer and presentation layer of OSI model.   **15**

Q.5   Write short notes on:
       a) UDP
       b) SMTP
       c) FTP   **5x3**

UNIT-III

Q.6   What do you mean by routing? How is distance vector routing different from link state routing?   **15**

Q.7   What are virtual LANs? How are they different from LANs? State advantages and disadvantages of virtual LANs.   **15**

UNIT-IV

Q.8   Explain token ring concept in relation to priority, reservations, monitor stations and backup stations etc.   **15**

Q.9   What is packet switching? How a datagram approach is different from a virtual circuit approach? Justify your answer.   **15**

End Semester Examination, May 2015

BCA – Sixth Semester

MULTIMEDIA AND ANIMATION (BCA-603)

Time: 3 hrs

Max Marks: **75**

No. of pages: 2

Note: *Attempt **FIVE** questions in all; **taking at least ONE question** from each Unit. **Q.1 is compulsory.** All questions carry equal marks.*

Q.1 Multiple choice questions:
a) Graphics that contain movement are often referred to as _____.
   i) Animation   ii) Motion
   iii) Premier adobe   iv) Flash
b) JPEG stands for:
   i) Joint photographic experts grade.
   ii) Joint photo experiment group.
   iii) Joint photographic enlarge group.
   iv) Joint photographic experts group.
c) What is the primary logical unit for data storage in a CD?
   i) Groove   ii) Pit
   iii) Sector   iv) Track
d) One of the disadvantages of multimedia is:
   i) Cost   ii) Adaptability
   iii) Relativity   iv) Usability
e) Which of the following is not a video file extension?
   i) MP4   ii) AVI
   ii) QT   iv) JPG
f) Video is represented as a series of images formally known as:
   i) Pics   ii) Shots
   iii) Frames   iv) Snaps
g) _____ is a technique in which one image transforms into another:
   i) Kinematics   ii) Morphing
   iii) Animation   iv) Layering
h) _____ is a decision making process about when user should admitted or not.
   i) Admission control   ii) Delay
   iii) Stand alone   iv) Synchronization
i) In cryptography , cipher text refers to _____.
   i) Plain text   ii) Formatted text
   iii) Clean text   iv) Rich text
j) Which one is a 3D animation software?
   i) Adobe Photoshop   ii) Microsoft silver light
   iii) Animation   iv) Toon Boom   **1½x10**

UNIT-I

Q.2 a) Explain about the multimedia system architecture in detail.   **10**
    b) What are the objects of multimedia?   **5**

Q.3 a) What are the advantages and disadvantages of multimedia?   **8**
    b) List out the basic software of multimedia and categorise them.   **7**

UNIT-II

Q.4   a) List out the differences between a plain text and a formatted text.   **5**
       b) What is OLE? Explain in detail.   **10**

Q.5   a) Write a short note on conversion in various text formats.
       b) Explain RTE syntax in detail.
       c) List all the tools used in HTML.   **5x3**

UNIT-III

Q.6   a) Differentiate between Lossless and Lossy compression techniques.
       b) How data compression is possible?
       c) Write a short note on bitmap image.   **5x3**

Q.7   a) Explain one of entropy encoding technique with an example.   **10**
       b) List some file formats used in multimedia.   **5**

UNIT-IV

Q.8   a) Discuss the principle of animation.   **10**
       b) List some 2D and 3D software. Also explain the 2D and 3D animation techniques.
       5

Q.9   Write short notes on:
       a) Morphing.
       b) Use of animation in multimedia.
       c) Image size on quality and storage.   **5x3**

End Semester Examination, May 2015
BCA -First Semester
FUNDAMENTALS OF INFORMATION TECHNOLOGY AND PROGRAMMING TECHNIQUES (BCA-1001)

Time: 3 hrs   Max Marks: **75**
No. of pages: 2

Note: *Attempt* **FIVE** *questions in all;* **taking at least ONE question** *from each Unit.* **Q.1 is compulsory.** *All questions carry equal marks.*

Q.1 **Multiple choice questions:**
  a) A computer program that converts assembly language to machine language is:
    i) Compiler   ii) Interpreter
    iii) Assembler   iv) Comparator
  b) ALU is:
    i) Arithmetic logic unit   ii) Array logic unit
    iii) Application logic unit   iv) None of the above
  c) The term gigabytes refers to:
    i) 1024 mega bytes   ii) 1024 kilobytes
    iii) Application logic unit   iv) None of the above
  d) The secondary storage devices can only store data but they cannot perform:
    i) Arithmetic operation   ii) Logic operation
    iii) Fetch operation   iv) Either of the above

State whether the following statements are True or False:
  e) Debugging means detecting, locating and removing all errors in a computer program.
  f) Structured programming do not follow modular approach.
  g) WORM stands for write once read many.
  h) ROM and RAM are secondary storage units.
  i) VOICE system are output devices.
  j) Condition stub and action stub form a decision table.   **1½x10**

UNIT-I

Q.2 Draw the block diagram of computer. Which component of a computer is generally called brain of a computer and why? Describe the functions of the distinct part of this component.   **15**

Q.3 Write down the applications of computers in the following fields:
  a) Banking   b) Medicine   c) Sports   d) Airline   e) Weather **3x5**

UNIT-II

Q.4 What do you understand by semi-conductor memory and magnetic memory? What are the similarities between the two? Also specify the major differences between the two.   **15**

Q.5 Perform the following conversions:
  a) $(172)_{10} = (?)_2$
  b) $(10110110101)_2 = (?)_{10}$
  c) $(FCA2)_{16} = (?)_2$

d) $(7952)_8 = (?)_{10}$

e) $(4459)_{10} = (?)_8$ **5x3**

UNIT-III

Q.6 What do you understand by an algorithm? What are the various measures that needs to be taken care when designing an algorithm? Illustrate with the help of an example.

15

Q.7 Write down the algorithm and also draw the flowchart for printing a Fibonacci series.

15

UNIT-IV

Q.8 Explain the approach which uses reverse engineering technique to solve the problem. Mention its relative advantages and disadvantages. Compare it with black box technique. **15**

Q.9 Which technique is popularly known as modular approach of programming? Explain its concept with a suitable example. Also mention its advantages and disadvantages.

15

End Semester Examination, May 2015
BCA -First Semester
PROGRAMMING IN 'C' (BCA-1002)

Time: 3 hrs   Max Marks: **75**
No. of pages: 2

Note: *Attempt* **FIVE** *questions in all;* **taking at least ONE question** *from each Unit.* **Q.1 is compulsory.** *All questions carry equal marks.*

Q.1 a) C language was developed by:
    i) Ken Thompson   ii) Dennis Ritchie
    iii) Peter Nortron   iv) None of the above
   b) The two operators && and || are:
    i) Arithmetic   ii) Logical   iii) Relational
   c) When we use the case control structure?
    i) To choose one from multiple alternatives.
    ii) To switch from one instruction to another.
    iii) To make execution fast.
    iv) None of the above.
   d) The expression $X = 4 + 2\%8$ evaluates:
    i) -6   ii) 6
    iii) 4   iv) None of the above
   e) The single character input/output functions are:
    i) scanf and printf   ii) getchar and putchar   iii) None of the above
   f) #define should not end with a semicolon. **(True / False)**
   g) A variable which is visible only in the function, in which it is defined is called local variable. **(True / False)**
   h) A C variable cannot start with a number. **(True / False)**
   i) Which escape character can be used to begin a new line in C?
   j) Which of the language is predecessor to C programming language?   **1½x10**

UNIT-I

Q.2 a) Write a program in C language to find area of a triangle.   **5**
   b) What are the reasons of popularity of C over other programming languages? **5**
   c) Write short note on constant.   **5**

Q.3 What is operator? Discuss various types of operators available in C language. Give an example of each.   **15**

UNIT-II

Q.4 Write the format, purpose and example of following:
   a) for loop   b) while loop   c) else-if ladder   **15**

Q.5 a) Give the syntax of declaring Arrays in C language with examples.   **8**
   b) Write a program in C to generate the Fibonacci series upto n terms.   **7**

UNIT-III

Q.6 a) Highlight the differences between Structure and Union.   **5**
   b) Explain with the help of an example how a structure is declared and initialized?   **5**

c) Distinguish between formal and actual parameters with examples. **5**

Q.7 a) Explain general syntax of C function with an example. **9**

b) What is recursion? While writing any recursive function what things must be taken care of? **6**

UNIT-IV

Q.8 a) Distinguish between:

i) Printf() and fprintf() ii) scanf() and fscanf() **5**

b) Discuss: fopen() and fclose() functions. **5**

c) What is the purpose of rewind()? **5**

Q.9 a) Discuss the various modes of opening a data file in C. **8**

b) Write a note on storage classes. **7**

End Semester Examination, May 2015
BCA -First Semester
ENVIRONMENTAL STUDIES (BCA-1003)

Time: 3 hrs   Max Marks: **75**

No. of pages: 2

Note: *Attempt* **FIVE** *questions in all;* **taking at least ONE question** *from each Unit.* **Q.1 is compulsory.** *All questions carry equal marks.*

Q.1   Choose/fill the correct option:
a) Which of these is not a natural ecosystem?
   i) Desert   ii) Aquarium   iii) Forest   iv) Mountain
b) Which of these is a threat to environment?
   i) Growing plants   ii) Growing population
   iii) Growing crops   iv) Growing flowers
c) The interactive zone between land, air and water is called:
   i) Aquarium   ii) Lithosphere
   iii) Biosphere   iv) Atmosphere
d) The word 'Environment' is derived from a French word 'Environ' which means _____.
e) The thinnest layer of the earth is:
   i) The core   ii) The mantle
   iii) The lithosphere   iv) The crust
f) What is the composition of oxygen in the atmosphere?
   i) 20%   ii) 21%
   iii) 22%   iv) 23%
g) The group of organisms which convert light into food are called:
   i) Autotrophs   ii) Heterotrophs
   iii) Decomposers   iv) Omnivores
h) BOD stands for:
   i) Biotic oxidation demand   ii) Biological oxidation demand
   iii) Biological oxygen demand   iv) Biochemical oxygen demand
i) 5th June is observed as:
   i) World forest day   ii) World environment day
   iii) World Wildlife day   iv) World Population day
j) The hormone responsible for maintaining the pregnancy is:
   i) LH   ii) FSH
   iii) Progesterone   iv) Oestrogen   **1½x10**

UNIT-I

Q.2   a) Why do we need to study environmental studies?   **7**
       b) Explain the role of an individual in conservation of natural resources.   **8**

Q.3   a) What do you mean by equitable use of resources for sustainable lifestyle?   **7**
       b) What do you mean by Natural resources? What are the associated problems with natural resources?   **8**

UNIT-II

Q.4   a) Explain the energy flow in an ecosystem with an example.   **8**
       b) Explain the structure and function of an ecosystem.   **7**

Q.5   a) Write a note on "India as a mega-diversity nation".   **8**
      b) Explain conservation of biodiversity.   **7**

UNIT-III

Q.6   Give causes, effects and control measures of any three:
      a) Nuclear hazards   b) Air pollution
      c) Water Pollution   d) Soil pollution   **5x3**

Q.7   a) What do you mean by a disaster management? Explain with relation to earthquakes and landslides.   **8**
      b) How solid waste can be managed in urban areas and in industries?   **7**

UNIT-IV

Q.8   a) Why environment needs to be protected? Explain different Environment Protection Acts.   **10**
      b) Write a note on Urban problems related to energy.   **5**

Q.9   a) Explain how economy of India has got affected by population explosion.   **8**
      b) Explain different methods to prevent pregnancy.   **7**

End Semester Examination, May 2015

BCA -First Semester

BASIC MATHEMATICAL SKILLS (BCA-1004)

Time: 3 hrs   Max Marks: **75**

No. of pages: 2

Note: *Attempt* **FIVE** *questions in all;* ***taking at least ONE question*** *from each Unit.* **Q.1 is compulsory.** *All questions carry equal marks.*

Q.1   a) Define Rank of matrix.

b) If $k+1$, $3k$, $4k+2$ be any 3 consecutive terms of an A.P., then value of k is _____.

c) Solve $\log \sqrt{8} / \log 8$.

d) Find $\dfrac{dy}{dt}$ for $y = x^9$

e) The 9th term of AP sequence $9, 12, 15, 18\ldots$ is _____.

f) If $\left(\dfrac{a}{b}\right)^{x-1} = \left(\dfrac{b}{a}\right)^{x-3}$, then the value of x is _____.

g) If $A = \begin{bmatrix} 3 & 2 \\ 1 & 1 \end{bmatrix}$ and $AB = \begin{bmatrix} 1 & 3 & 2 \\ 1 & 1 & 1 \end{bmatrix}$, then:

     i) B is not determined   ii) $B = \begin{bmatrix} -1 & 1 & 0 \\ 2 & 0 & 1 \end{bmatrix}$

     iii) $B = \begin{bmatrix} -1 & 2 \\ 1 & 0 \\ 0 & 1 \end{bmatrix}$ iv) $B = \begin{bmatrix} -1 & 1 \\ 2 & 0 \end{bmatrix}$

h) Fine the value of a if the following matrix is singular $\begin{bmatrix} -4 & 2 \\ 6 & a \end{bmatrix}$

i) Find cofactor of A_{23} of the matrix $\quad A = \begin{bmatrix} 5 & -2 & 7 \\ 6 & 1 & -9 \\ 4 & -3 & 8 \end{bmatrix}$

j) If $A = \begin{bmatrix} 5 & 3 & 2 \\ 0 & 4 & 1 \\ 0 & 0 & 3 \end{bmatrix}$ the $|A|$ is _____.   **1½x10**

UNIT-I

Q.2   a) If $A = \begin{bmatrix} 0 & 3 \\ -7 & 5 \end{bmatrix}$ and $I = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$, then find K so that $KA^2 = 5A - 21I$ **7**

b) Find the value of x such that $\begin{bmatrix} 1 & 2 & 1 \end{bmatrix} \begin{bmatrix} 1 & 2 & 0 \\ 2 & 0 & 1 \\ 1 & 0 & 2 \end{bmatrix} \begin{bmatrix} 1 \\ 2 \\ x \end{bmatrix} = 0$ **8**

Q.3   a) Verify Cayley-Hamilton theorem for matrix $A = \begin{bmatrix} 1 & 3 & 3 \\ 1 & 4 & 3 \\ 1 & 3 & 4 \end{bmatrix}$ and hence find A^{-1}. **10**

   b) Find the rank of matrix $A = \begin{bmatrix} 3 & 2 & 7 \\ 4 & -3 & -2 \\ 5 & 9 & 23 \end{bmatrix}$. **5**

UNIT-II

Q.4   a) The sum of 3 numbers in A.P. is 15. If 1, 4 and 19 are added to the numbers, the resulting numbers are in G.P. Find the numbers. **7**
   b) How many words can be formed from the letters of the word DAUGHTER?
   i) Taking all letters together   ii) Beginning with D and ending with R   **8**

Q.5   a) Find the 8th term in $\left[\dfrac{2x}{3} - y^2 \right]^{11}$ **7**

   b) Sum the series 5+55+555+…… to n terms. **8**

UNIT-III

Q.6   a) Show that $2\log x + 2\log x^2 + 2\log x^3 + ... + 2\log x^n = n(n+1)\log x$ **8**

   b) Simplify: $\dfrac{\tan(90+\theta)\sin(180+\theta)\sec(270+\theta)}{\cos(270-\theta)\operatorname{cosec}(180-\theta)\cot(360-\theta)}$ **7**

Q.7   a) If ABCD is a cyclic quadrilateral, Prove that $\cos A + \cos B + \cos C + \cos D = 0$ **7**
   b) If $\log\dfrac{x+y}{7} = \dfrac{1}{2}(\log x + \log y)$; Show that: $\dfrac{x}{y} + \dfrac{y}{x} = 47$ **8**

UNIT-IV

Q.8   a) For value of k is the following function $f(x)$ continuous at $x = 2$

$$f(x) = \begin{cases} \dfrac{x^2-4}{x-2} & ; \quad x \neq 2 \\[4mm] k & ; \quad x = 2 \end{cases}$$

7

   b) If $y = \sqrt{x} - \dfrac{1}{\sqrt{x}}$, Show that $2x\dfrac{dy}{dx} + y = 2\sqrt{x}$ **8**

Q.9   a) If $y = \dfrac{x}{x+y}$, show that $x\dfrac{dy}{dx} = y(1-y)$ **7**

   b) If $\lim\limits_{x \to} \dfrac{x^4-1}{x-1} = \lim\limits_{x \to k} \dfrac{x^3-k^3}{x^2-k^2}$ find the value of k **8**

End Semester Examination, May 2015
BCA -Second Semester
DATA STRUCTURES (BCA-2001)

Time: 3 hrs

Max Marks: **75**
No. of pages: 2

Note: *Attempt* **FIVE** *questions in all;* **taking at least ONE question** *from each Unit.* **Q.1 is compulsory.** *All questions carry equal marks.*

Q.1 **Answer the following by choosing the correct option:**
 a) The smallest element of an array's index is called its:
  i) Lower bound ii) Upper bound
  iii) Range iv) Extraction
 b) Which of the following sorting algorithm is of divide and conquer type?
  i) Bubble ii) Quick
  iii) Insertion iv) All of the above
 c) Which data structure allows deleting data elements from font and inserting at rear?
  i) Stack ii) Queries
  iii) Dequeue iv) All of the above
 d) Linklist are not suitable for:
  i) Insertion sort ii) Binary search
  iii) Queue iv) None of the above

Fill in the blanks:
 e) Two dimensional arrays are called _____.
 f) Stack is based on the principle _____.
 g) The front of the queries calculated by _____.

State whether True or False:
 h) A binary tree can be converted into two tree by replacing each empty subtree by a new external node.
 i) A connected graph T without any cycle is called neighbor.
 j) A graph is a non linear data structure. **1½x10**

UNIT-I

Q.2 a) Suppose A is 2-dimmensional array with 20 rows and 4 columns. Each element of array is stored in 4 memory locations if base address is 200. Calculate:
  i) A[12, 3] using row major ii) A[14, 2] using column major **7**
 b) Define the followings:
  i) Data ii) Information iii) Time complexity iv) Space complexity

  8

Q.3 a) Explain sparse array. How can you store the sparse array in memory? Explain with an example. **8**
 b) Write an algorithm for inserting a new element into a linear array. **7**

UNIT-II

Q.4 What do you understand by stack? Discuss the various operations of stack. Convert the infix notation into postfix notation $((X-Y)/Z)*((U+V)-W)$. **15**

Q.5   a)   Mention and explain various types of queue with examples.   **7**

      b)   What are advantages and disadvantages of linked lists? How linked lists can be used for polynomial manipulation?   **8**

UNIT-III

Q.6   a)   From the given binary tree, answer the followings:
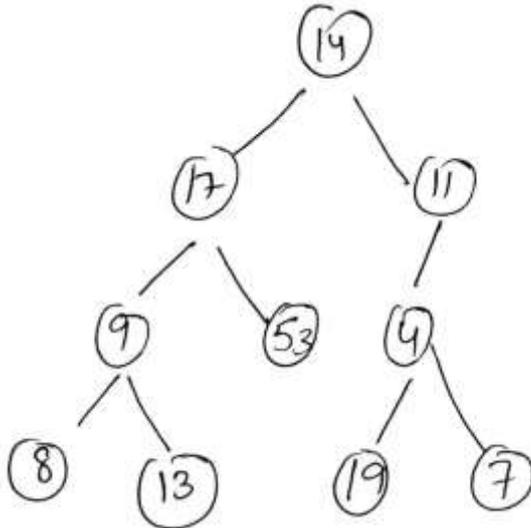
        i)   Which is root node?

        ii)   Which are leaf nodes?

        iii)   What is the result of pre-order traversal?

        iv)   What is the result of post-order traversal?

        v)   What is the result of in-order traversal?   **10**

      b)   Write a short note on threaded tree.   **5**

Q.7   What is minimum spanning tree? Write Kruskal algorithm for minimum spanning tree. Also, find the minimum spanning tree for the following:
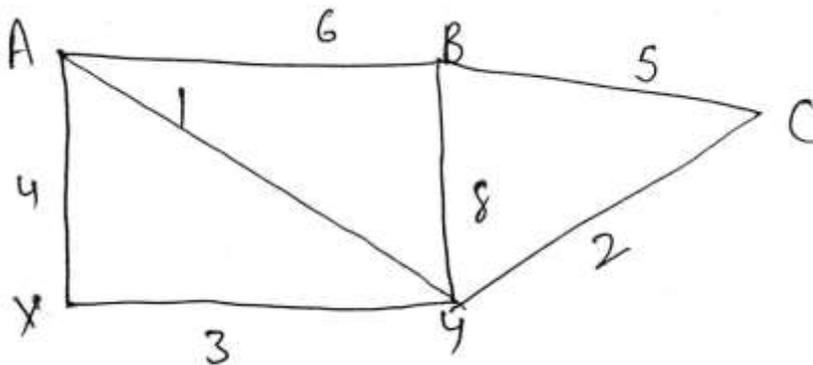
                                                               15

UNIT-IV

Q.8   a)   Sort the following data using quick sort:

         66, 77, 11, 88, 99, 22, 33, 44, 55.   **8**

      b)   Write an algorithm to search a particular element using binary search method.   **7**

Q.9   What is hashing? Discuss various hashing techniques. Also, discuss the concept of collision resolution technique in detail.   **15**

End Semester Examination, May 2015

BCA -Second Semester
DATABASE SYSTEMS (BCA-2002)

Time: 3 hrs   Max Marks: **75**
No. of pages: 2

Note: *Attempt* **FIVE** *questions in all;* **taking at least ONE question** *from each Unit.* **Q.1 is compulsory.** *All questions carry equal marks.*

Q.1   **Answer the following by choosing the correct option:**
   a) A database schema refers to:
      i)   Information at particular level
      ii) Overall design of database
      iii) Query language
      iv) Validation issues
   b) Row is synonymous with the term:
      i)   Record   ii) Relation   iii) Column   iv) Field
   c) Which of the following is a group of one or more attributes that uniquely identifies a row?
      i)   Key   ii) Determinants   iii) Tuple   iv) Relation
   d) Traditional set operators include:
      i)   Union   ii) Selection   iii) Projection   iv) Division
   e) Which structure is network model based on?
      i)   Graph   ii) Linked list   iii) Domain   iv) None of the above
   f) Which of the following is not a type of SQL constraint?
      i)   Primary key   ii) Foreign key
      iii) Alternate key   iv) Unique key
   g) A functional dependency is a relationship between or among:
      i)   Tables   ii) Rows   iii) Relations   iv) Attributes
   h) Read only databases are _____ updated.
      i)   Always   ii) Commonly   iii) Increases   iv) None of the above
   i) A transaction completes its execution is said to be:
      i)   Committed   ii) aborted   iii) Rolled back   iv) Failed
   j) In ER diagram, ER stands for:
      i)   Entity-Record   ii) Entity-Relationship
      iii) Entity-Row   iv) All of the above.   **1½x10**

UNIT-I

Q.2   What is file based approach of database? Explain its limitations. How DBMS management system is better solution along with advantages and disadvantages of DBMS?   **15**

Q.3   What are the different notations used for designing an ER diagram and explain their usage?   **15**

UNIT-II

Q.4   Explain all types of keys used in relational model with a suitable database example.
                                                                                15

Q.5   Discuss any 10 Oracle functions with proper syntax and suitable examples.   **15**

UNIT-III

Q.6 What is meant by normalization? Why do we normalize the database? Explain different techniques of normalization. **15**

Q.7 Explain two-phase locking protocol with a suitable example in concurrency control.

15

UNIT-IV

Q.8 What is the importance of recovery procedure? What is meant by log-based recovery technique? Discuss different types of log based recovery techniques. **15**

Q.9 What is meant by DDBMS? Compare DDBMS with DBMS and discuss advantages and disadvantages of DDBMS. **15**

End Semester Examination, May 2015

BCA -Second Semester

LOGICAL ORGANISATION OF COMPUTER (BCA-2003)

Time: 3 hrs   Max Marks: **75**

No. of pages: 2

Note: *Attempt* **FIVE** *questions in all;* **taking at least ONE question** *from each Unit.* **Q.1 is compulsory.** *All questions carry equal marks.*

Q.1   **Multiple choice questions:**
   a) A flip flop has:
   i) One stable state   ii) No stable state
   iii) Two stable states   iv) None of the above
   b) Which is typically the longest: bit, byte, nibble word?
   i) Bit   ii) Byte   iii) Nibble   iv) word
   c) A JK flip flop is in a "no change" condition when:
   i) J=1 K=1   ii) J=1, K=0   iii) J=0, K=1   iv) J=0, K=0
   d) The clock signals are used in sequential logic circuits:
   i) to tell the time of the delay.
   ii) to tell how much time has elapsed since the system was turned on.
   iii) to carry serial digital signals.
   iv) to synchronize events in various parts of a system.
   e) The two parts of a microprocessor instruction are called operation and the:
   i) Operand   ii) Operator
   iii) Observable   iv) None of the above
   f) A combinational circuit which is used to change a decimal number into an equivalent BCD number is:
   i) Decoder   ii) Encoder
   iii) Multiplexer   iv) Demultiplexer
   g) A 20-bit address bus allows access to a memory of capacity:
   i) 1 MB   ii) 2 MB
   iii) 32 MB   iv) 64 MB
   h) When is a cache block written into the main memory?
   i) Valid bit is not set
   ii) Every cycle
   iii) Dirty bit is set
   iv) None of the above
   i) A microprocessor retries instructions from:
   i) Control memory
   ii) Cache memory
   iii) Main memory
   iv) Virtual memory
   j) A 32 bit microprocessor has the word length equal to:
   i) 2 bytes   ii) 32 bytes
   iii) 4 bytes   iv) 8 bytes   **1½x10**

UNIT-I

Q.2   a) Why a binary number system is preferred for computers? Explain with reason.

5

   b) Perform the following:

i) $(798.5)_{10}=(\quad)_{16}=(\quad)_8=(\quad)_2$ ii) $79 - (32)$ **5x2**

Q.3 a) Generate the Hamming code for data bits 1101.   **5**

     b) Write short notes on:
       i) Non weighted code
       ii) Floating point numbers   **5x2**

UNIT-II

Q.4 What are universal gates? Simulate NAND and NOR gates to all gates.   **15**

Q.5 Simplify the following using K-map.

     a) $F(A, B, C, D) = \sum(0, 3, 5, 6, 9, 11, 13, 14, 15)$

       $D(A, B, C, D) = \sum(1, 2, 8)$

     b) $F(w, x, y, z) = \pi(1, 5, 7, 9, 10, 12, 14)$ **7½x2**

UNIT-III

Q.6 What is the limitation of JK flip-flop? How can we overcome from them? Obtain the logic diagram of master slave flip-flop using NAND gates.   **15**

Q.7 Explain the followings:
     a) Multiplexers
     b) Full adder
     c) Decoder   **5x3**

UNIT-IV

Q.8 What is a cache memory? Explain various types of mapping techniques in detail.   **15**

Q.9 What is parallel processing? Explain in detail.   **15**

End Semester Examination, May 2015
BCA -Second Semester
CONCEPTUAL FOUNDATIONS OF MANAGEMENT (BCA-2004)

Time: 3 hrs   Max Marks: **75**

No. of pages: 1

Note: *Attempt **FIVE** questions in all; **taking at least ONE question** from each Unit. **Q.1 is compulsory.** All questions carry equal marks.*

Q.1   **Multiple choice questions:**
a) Which are of the following approaches has merged from the findings of Hawthorne experiments?
  i) Human behavior approach   ii) Systems approach
  iii) Classical theory   iv) Decision theory
b) Which one of the following is departmentation based on functions?
  i) Marketing   ii) North territory
  iii) Department named(A)   iv) Department named one.
Fill in the blanks:
c) A principle means a fundamental statement of _____.
d) _____ is the process of checking.
e) Organising is the _____ of work.
f) Informal leaders are not appointed but _____ in informal groups.
g) Communication is necessary to every _____.
h) A _____ must have qualities of a good leader.
i) _____ is the barrier in the sound decision making process.
Answer the question:
j) What are management information systems?   **1½x10**

UNIT-I

Q.2   Define the term 'management'. Explain different functions of management.   **15**

Q.3   Explain Frederick Winslow Taylor's contribution of management thought.   **15**

UNIT-II

Q.4   What is the concept of planning as an element of management process? Discuss its role in business organizations.   **15**

Q.5   Write short notes on the followings:
a) Importance of management information systems in decision-making process. **8**
b) Types of plans.   **7**

UNIT-III

Q.6   Explain the various steps in the process of organizing and discuss the significance of organizing.   **15**

Q.7   Explain the followings:
a) The importance of co-ordination in organizing.   **8**
b) Span of management.   **7**

UNIT-IV

Q.8   "A good leader is not necessarily a good manager." Discuss this statement and compare leadership with management.   **15**

Q.9   Write notes on:
       a) Qualities of a good leader.   b) Autocratic leader.   **7½x2**

End Semester Examination, May 2015

BJMC – First Semester

INDIAN GOVERNMENT AND POLITICS (BJ-101)

Time: 3 hrs

Max Marks: **80**

No. of pages: 1

Note: *Attempt any* **FIVE** *questions in all;* **Q.1 is compulsory**. *Attempt any* **FIVE** *questions from* **Part A** *and any* **TWO** *questions* **from Part B**.

Q.1 Answer **any ten** of the following:
- a) Name the chief minister of Maharashtra.
- b) Name any three regional parties of Uttar Pradesh.
- c) How many members are there in Rajya Sabha?
- d) Who is the head of a Municipal Corporation?
- e) Define Politics.
- f) Write down any two eligibility criteria for a Governor.
- g) 'Indian constitution is flexible in nature'. **True/False**
- h) 'The members of the panchayat are elected directly by the electorates of the respective territorial constituencies'. **True/False**
- i) The members of the Rajya Sabha are elected by_____.
- j) 'The present Lok Sabha is the 16th Lok Sabha". **Yes/No**
- k) The minimum age to qualify for election to the Lok Sabha is____.
- l) The Parliament of India can make use of the residuary powers at all times or only during national emergency.
- m) The preamble says that the state in India will assure the dignity of the individual. The constitution seeks to achieve this object by guaranteeing equal fundamental rights to each citizen or the right to adequate means of livelihood to each individual.
- n) 'The president can dissolve the Lok Sabha on the advice of the chief justice of India' **True/False**

1½x10

PART-A

Q.2 Examine the role of Local Self Government in the Post-independence period.
6

Q.3 How is the Election Commission of India constituted?
6

Q.4 State the difference between Council of Ministers and the Cabinet.
6

Q.5 How is the Vice President of India elected?
6

Q.6 Write a short note on India's National movement.
6

Q.7 Discuss the eligibility criteria of a Supreme Court judge.
6

Q.8 Describe the salient features of the Indian Constitution.
6

Q.9 What is meant by 'equal protection of law'?
6

PART-B

Q.10 Write a descriptive note on Naxal Movement in India and explain its Pros and cons.

17½

Q.11 Discuss in detail the role of Major political parties in India.
17½

Q.12 If u were the Prime Minister of India, What policies and changes you will formulate for the betterment of the country?
17½

End Semester Examination, May 2015

B. Sc. (N & D) - First Semester
ENGLISH (BND-104)

Time: 3 hrs   Max Marks: **60**

No. of pages: 3

Note: *Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.*

PART-A

Q.1   Write an essay on ***any one*** of the following:
   a) Women Empowerment
   b) Gender Sensitization
   c) Bollywood mesmerizing the youth   **10**

Q.2   A friend of yours has been out of station for a month and there was a workshop on enhancement of communication skills held in your college while he/she was away. Write a letter to your friend describing the workshop and your experience with it. **10**

Q.3   Youth today are very much fascinated with fashion and bollywood. Today youth feel that the change in fashion and movies in bollywood have affected the life style and the culture of the society. Write an article, in 150-200 words, expressing your views. **10**

Q.4   Read the passage given below and then answers the following questions:

It is reported that the Government is close to finalizing a system of dual pricing for the public procurement of food grains. There would be two basic elements to this system: Afixed minimum support price (MSP) covering the cost of cultivation, as at present, recommended by the Commission on Agricultural Costs and Prices (CACP), and variable procurement prices, at the discretion of the department of food, depending on market. For example, according to a working group of the Planning Commission, over the five year period ending 2001-02, when there was a steep rise in procurement price resulting in accumulation of embarrassing large stock of food grains of over 60 million tones with Government, consumption of food grains in the country was reduced, on this account, by at least five million tones per annum. The new system by assigning a greater role for private trade can improve the efficiency in the distribution of food grains and substantially cut down subsidies, which can help to step up much needed public investment in agriculture. The proposed dual pricing system is a better alternative than total marketization of food grains trade by disbanding altogether public procurement at MSP.

Such a dismantling could lead to a crash in market prices of food grains in years of food harvest. Even though this may take exports competitive and raise domestic consumption of food grains in the short run, it may undermine food security by sapping producer incentives. The experience of green revolution underlines the importance of assured MSP including the farmers to step up their own investment and effort and derive full benefit from available infrastructure.

For the dual pricing system to yield desired results, it needs to be backed by several other policy measures. Since the impetus for crop diversification would be greater in

the infrastructural developed regions like the north-west, this can slow down the growth of food grains output in the country and, in particular, the surpluses procured, unless immediate measures are taken to strengthen public support for irrigation, technology, extension and credit in the rest of the company, especially in the central and eastern regions where there is a large potential as the growth of food grains output has barely kept pace with population growth since the mid-90s. This also calls for more effective public procurement of food grains at MSP in these regions, as farmers have to often sell their produce immediately after the harvest at prices that are lower than MSP. Therefore, dual pricing system can be sustained only through non-price interventions such as infrastructural support for regional dispersal of growth in food grain output.

The new system requires better market intelligence forecasts as well as concurrent analyses on prices and sales in markets in India and abroad.

a) What are the two elements of dual pricing system for procuring food grains?
b) How will the above proposed system benefit the nation?
c) Mention atleast four non-food grain items used by the consumers.
d) What is the result of ecological degradation in the north-western region of India?
e) In order to boost the dual system what urgent measures are needed to be taken?

2x5

PART-B

Q.5   Read and correct the incorrect sentences:
a) Either Mohan or his friend go for the dance classes.
b) Neither the teachers nor the professors takes the workshop.
c) Everybody know the answer.
d) One of the student is making noise.
e) Half of the pies in gone from the plate.   **1x5**

Q.6   Use the following vowel in a word and then make a sentence.
/a:/,/u:/,/ae/,/^/,/l:/   **5**

Q.7   The following sentences have errors. Identify the errors in each line and write the correct sentence:
a) I will like to discuss about the matter with the boss.
b) I have a cousin brother.
c) Please repeat that again for me.
d) What is your good name.
e) I met my friend today morning.   **1x5**

Q.8   a) Give the synonyms of the following:
       Ability, Cautious, Interrupt, Noble, Opportunity
       b) Give the antonyms of the following:
       Ascent, Freedom, Saint, Usual, Zenith   **2$^{1}/_{2}$x2**

Q.9   Choose the right prepositions and complete the sentence:
a) The rat ran_____(into/in) the hole.
b) My office is _____(at /on) the 4th floor.
c) I have been living in England _____(Since/For) 2 years.
d) I saw him driving the car_____(at/in) the night.

e) The building is _____(beside/besides) McDonlds.   **1x5**

Q.10   What do you mean by the word 'Active Listening' and how does it benefit an individual?   **5**

Q.11   Choose the right form of the tenses and rewrite the sentence:
    a) He (drink/drank) the entire glass of water.
    b) I have (seen/saw) him cheating in the examination hall.
    c) He (choose/chose) him the president of the college.
    d) Riya did not (go/went) to the market.
    e) He had already (gone/went) to Manali.   **1x5**

End Semester Examination, May 2015
BJMC – First Semester
INDIAN GOVERNMENT AND POLITICS (BJ-101)

Time: 3 hrs

Max Marks: **80**

No. of pages: 1

Note: *Attempt any* **FIVE** *questions in all;* **Q.1 is compulsory**. *Attempt any* **FIVE** *questions from* **Part A** *and any* **TWO** *questions* **from Part B**.

Q.1 Answer **any ten** of the following:
   a) Name the chief minister of Maharashtra.
   b) Name any three regional parties of Uttar Pradesh.
   c) How many members are there in Rajya Sabha?
   d) Who is the head of a Municipal Corporation?
   e) Define Politics.
   f) Write down any two eligibility criteria for a Governor.
   g) 'Indian constitution is flexible in nature'. **True/False**
   h) 'The members of the panchayat are elected directly by the electorates of the respective territorial constituencies'. **True/False**
   i) The members of the Rajya Sabha are elected by_____.
   j) 'The present Lok Sabha is the 16th Lok Sabha". **Yes/No**
   k) The minimum age to qualify for election to the Lok Sabha is_____.
   l) The Parliament of India can make use of the residuary powers at all times or only during national emergency.
   m) The preamble says that the state in India will assure the dignity of the individual. The constitution seeks to achieve this object by guaranteeing equal fundamental rights to each citizen or the right to adequate means of livelihood to each individual.
   n) 'The president can dissolve the Lok Sabha on the advice of the chief justice of India' **True/False**
   1½x10

PART-A

Q.2 Examine the role of Local Self Government in the Post-independence period.
   6

Q.3 How is the Election Commission of India constituted?
   6

Q.4 State the difference between Council of Ministers and the Cabinet.
   6

Q.5 How is the Vice President of India elected?
   6

Q.6 Write a short note on India's National movement.
   6

Q.7 Discuss the eligibility criteria of a Supreme Court judge.
   6

Q.8   Describe the salient features of the Indian Constitution.
       6

Q.9   What is meant by 'equal protection of law'?
       6

PART-B

Q.10   Write a descriptive note on Naxal Movement in India and explain its Pros and cons.

       17½

Q.11   Discuss in detail the role of Major political parties in India.
       17½

Q.12   If u were the Prime Minister of India, What policies and changes you will formulate for the betterment of the country?
       17½

End Semester Examination, May 2015

BJMC – First Semester
INDIAN GOVERNMENT AND POLITICS (BJ-101)

Time: 3 hrs

Max Marks: **80**
No. of pages: 1

Note: *Attempt any* **FIVE** *questions in all;* **Q.1 is compulsory**. *Attempt any* **FIVE** *questions from* **Part A** *and any* **TWO** *questions* **from Part B**.

Q.1   Answer **any ten** of the following:
   a) Name the chief minister of Maharashtra.
   b) Name any three regional parties of Uttar Pradesh.
   c) How many members are there in Rajya Sabha?
   d) Who is the head of a Municipal Corporation?
   e) Define Politics.
   f) Write down any two eligibility criteria for a Governor.
   g) 'Indian constitution is flexible in nature'. **True/False**
   h) 'The members of the panchayat are elected directly by the electorates of the respective territorial constituencies'. **True/False**
   i) The members of the Rajya Sabha are elected by_____.
   j) 'The present Lok Sabha is the 16th Lok Sabha". **Yes/No**
   k) The minimum age to qualify for election to the Lok Sabha is_____.
   l) The Parliament of India can make use of the residuary powers at all times or only during national emergency.
   m) The preamble says that the state in India will assure the dignity of the individual. The constitution seeks to achieve this object by guaranteeing equal fundamental rights to each citizen or the right to adequate means of livelihood to each individual.
   n) 'The president can dissolve the Lok Sabha on the advice of the chief justice of India' **True/False**
   1½x10

PART-A

Q.2   Examine the role of Local Self Government in the Post-independence period.
   6

Q.3   How is the Election Commission of India constituted?
   6

Q.4   State the difference between Council of Ministers and the Cabinet.
   6

Q.5   How is the Vice President of India elected?
   6

Q.6   Write a short note on India's National movement.
   6

Q.7   Discuss the eligibility criteria of a Supreme Court judge.
   6

Q.8 Describe the salient features of the Indian Constitution.
6

Q.9 What is meant by 'equal protection of law'?
6

PART-B

Q.10 Write a descriptive note on Naxal Movement in India and explain its Pros and cons.

17½

Q.11 Discuss in detail the role of Major political parties in India.
17½

Q.12 If u were the Prime Minister of India, What policies and changes you will formulate for the betterment of the country?
17½

End Semester Examination, May 2015
BJMC – First Semester
INDIAN SOCIETY AND ECONOMY (BJ-102)

Time: 3 hrs

Max Marks: **80**

No. of pages: 1

Note: *Attempt any* **FIVE** *questions in all;* **Q.1 is compulsory**. *Attempt any* **FIVE** *questions from* **Part A** *and any* **TWO** *questions* **from Part B**.

Q.1   Attempt **any ten** of the following:
   a) What do you mean by Renaissance?
   b) Who was Dadabhai Naoroji?
   c) Who is the founder of Brahmo Samaj?
   d) Ashoka, the King became the follower of ……………?
   e) OBC stands for ………………
   f) FDI stands for ……………….
   g) What do you mean by Liberalization?
   h) Who is the Finance Minister of India?
   i) MNREGA stands for ………………
   j) Who were known as Lal Bal Pal in India?
   k) Who is the founder of Jainism?
   l) What do you mean by Macro Economics?
   m) What do you mean by Secularism?
   n) What is Kuchipudi?
   o) What is Mid-day meal?
      1½x10

PART-A

Q.2   Discuss the features of Indian society in detail.
   6

Q.3   Write a short note on female feticide.
   6

Q.4   Throw light on the role of religion in the development of society.
   6

Q.5   Describe the impact of unemployment and poverty of India.
   6

Q.6   Write a short note on relevance of traditional values in modern society.
   6

Q.7   Discuss the role of Globalization in the growth of Indian Economy.
   6

Q.8   Write a detailed note on FDI.
   6

Q.9   Throw light on the impact of freedom movement on Indian Society.
       6

PART-B

Q.10   Explain the history of major religions of India in detail.
       17½

Q.11   Throw light on the features of Indian Economy.
       17½

Q.12   Write a detailed note on the short industries of India.
       17½

End Semester Examination, May 2015
BJMC – First Semester
INDIAN SOCIETY AND ECONOMY (BJ-102)

Time: 3 hrs

Max Marks: **80**

No. of pages: 1

Note: *Attempt any* **FIVE** *questions in all;* **Q.1 is compulsory**. *Attempt any* **FIVE** *questions from* **Part A** *and any* **TWO** *questions* **from Part B**.

Q.1   Attempt **any ten** of the following:
   a) What do you mean by Renaissance?
   b) Who was Dadabhai Naoroji?
   c) Who is the founder of Brahmo Samaj?
   d) Ashoka, the King became the follower of ……………?
   e) OBC stands for ………………
   f) FDI stands for ………………
   g) What do you mean by Liberalization?
   h) Who is the Finance Minister of India?
   i) MNREGA stands for ………………
   j) Who were known as Lal Bal Pal in India?
   k) Who is the founder of Jainism?
   l) What do you mean by Macro Economics?
   m) What do you mean by Secularism?
   n) What is Kuchipudi?
   o) What is Mid-day meal?
      1½x10

PART-A

Q.2   Discuss the features of Indian society in detail.
   6

Q.3   Write a short note on female feticide.
   6

Q.4   Throw light on the role of religion in the development of society.
   6

Q.5   Describe the impact of unemployment and poverty of India.
   6

Q.6   Write a short note on relevance of traditional values in modern society.
   6

Q.7   Discuss the role of Globalization in the growth of Indian Economy.
   6

Q.8   Write a detailed note on FDI.
   6

Q.9 Throw light on the impact of freedom movement on Indian Society.
6

PART-B

Q.10 Explain the history of major religions of India in detail.
17½

Q.11 Throw light on the features of Indian Economy.
17½

Q.12 Write a detailed note on the short industries of India.
17½

End Semester Examination, May 2015

BJMC – First Semester
INTRODUCTION TO COMMUNICATION AND MEDIA (BJ-103)

Time: 3 hrs

Max Marks: **80**
No. of pages: 1

Note: *Attempt any* **FIVE** *questions in all;* **Q.1 is compulsory**. *Attempt any* **FIVE** *questions from* **Part A** *and any* **TWO** *questions* **from Part B**.

Q.1   Attempt **any ten** of the following:
   a) Define interpersonal communication.
   b) Name any two national news agencies.
   c) In which year television came to India?
   d) UNI stands for _____.
   e) What is a blog?
   f) Television is an audio visual medium of communication. **(True/False)**
   g) Cinema is one of the most powerful medium of communication. **(True/False)**
   h) Give any two disadvantages of internet.
   i) Who poised the term 'Global Village'?
   j) Give two examples of intrapersonal communication.
   k) Name any two sports magazines.
   l) Define infotainment.
   m) In which year Yuva Vani started?
   n) In which year radio came to India?
   o) AP stands for _____.
      1½x10

PART-A

Q.2   Discuss the functions of communication in detail.
   6

Q.3   Write a short note on culture.
   6

Q.4   Write a short note on group communication.
   6

Q.5   What do you understand by non verbal communication? Explain.
   6

Q.6   Write a short note on history of radio.
   6

Q.7   What do you mean by target audience? Explain.
   6

Q.8   Trace the history of television in India.
   6

Q.9   Discuss in detail the process and elements of communication.
       6

PART-B

Q.10   'Mass communication plays an important role in the development of a society'. Discuss in detail.
       17½

Q.11   Write a detailed note on Indian Cinema.
       17½

Q.12   Write a detailed note on the future of print journalism in the era of new media.
       17½

End Semester Examination, May 2015

BJMC – First Semester
BASIC LANGUAGE SKILLS (BJ-104)

Time: 3 hrs

Max Marks: **80**

No. of pages: 1

Note: **Q.1 is compulsory**. *Attempt any* **FIVE** *questions from* **Part A** *and any* **TWO** *questions* **from Part B**.

Q.1 Answer **any ten** of the following questions and selecting at least three from each group.

   A Correct the following sentences:
- i) We plays cricket.
- ii) He did not went there.
- iii) He lives at Chennai.
- iv) We have been playing for 5 o' clock.
- v) Why doesn't you understand this?
- vi) Have they see that movie?
- vii) He died from cholera.
- viii) He is best student of his class.
- ix) The students have been allowed to go on a educational trip.
- x) Have you see that move?
- xi) He is to weak to walk.
- xii) Students are teach by the teacher.
- xiii) They are planning to go in USA.

   B Write out the Verb Patterns in respect of the following sentences:
- i) Has he gone to school?
- ii) He played cricket.
- iii) He reached here.
- iv) The student is honest.
- v) He completed the work.

1½x10

PART-A

Q.2 Answer **any five** of the following:
- i) What are the different types of feature?
- ii) Coherency and correctness.
- iii) Why writing for media is different from other forms of writing?
- iv) Ideas and content.
- v) Economy of words.
- vi) Write a human interest story of your interest.
- vii) Sentence fluency.
- viii) What are the different types of letter?

6x5

PART-B

Q.3 Answer **any two** of the following:
- i) Discuss the concept of news. Explain different types of news with suitable examples.

ii) Discuss the importance of grammar in writing.
iii) What is resume/CV? Prepare a resume for the job you are applying for.

17½x2

End Semester Examination, May 2015

BJMC – Second Semester

PRESS LAWS AND HISTORY OF JOURNALISM (BJ-201)

Time: 3 hrs   Max Marks: **70**

No. of pages: 1

Note:**Q.1 is compulsory**. *Attempt any **FIVE** questions from **Part A** and any **TWO** questions **from Part B**.*

Q.1   Attempt **any ten** of the following:
 a) Who was the Chairman of Second Press Commission?
 b) In which year was Right to Education Act passed?
 c) Name any two newspapers started by Raja Ram Mohan Roy.
 d) What is NANAP?
 e) Who was the first editor of The Hindustan Times?
 f) What is the full form of STAR?
 g) Who started quit India moment in India?
 h) What is Vernacular Press Act?
 i) What do you mean by Dateline?
 j) What is the size of a Tabloid?
 k) Who wrote the book "The Accidental Prime Minister"?
 l) What do you mean by Interest Groups?
 m) Who invented radio?
 n) What is the name of first patriotic film of India?
 o) Who is the producer of film "Mother India"?
  1x10

PART-A

Q.2   Write a short note on Contempt of Court.
  5

Q.3   Throw light on role of press in social reform moment in India.
  5

Q.4   Define Censorship. Discuss its relevance in media.
  5

Q.5   Briefly explain Intellectual Property Act.
  5

Q.6   Explain Right to Information in detail.
  5

Q.7   Write in detail about Cable Act.
  5

Q.8   Briefly explain working and recommendations of different press committees in India.
  5

Q.9   Explain:
       a) PRSI   b) DAVP   c) TRAI
       5

PART-B

Q.10   Write a descriptive note on history of News Agencies in India.
       17½

Q.11   Explain Working Journalist Act 1958. Discuss its relevance in current situation of media.
       17½

Q.12   Throw light on Fundamental Rights and Duties laid down by Indian Constitution.
       17½

Q.13   Explain code of conduct guidelines laid down by PCI for journalists in India?
       17½

End Semester Examination, May 2015
BJMC – Second Semester
INTERNATIONAL RELATIONS (BJ-202)

Time: 3 hrs   Max Marks: **70**

No. of pages: 1

Note:**Q.1 is compulsory**. *Attempt any* **FIVE** *questions from* **Part A** *and any* **TWO** *questions* **from Part B**.

Q.1   Answer **any ten** of the following:
   a) Who is the Secretary General of United Nations?
   b) Name any two theories of studying International Relations.
   c) In which year USSR disintegrate?
   d) How many members are there in the UN Security Council?
   e) What is the full form of ASEAN?
   f) Name the President of United States of America.
   g) What do you mean by Multi-Polar World?
   h) How many members are there in SAARC?
   i) Name any two International News Agencies.
   j) In which year did Indo-China war take place?
   k) Where is the Headquarter of United Nations situated?
   l) Who is the External Affairs Minister of India?
   m) The abbreviation OPEC and OIC stands for_____.
   n) Name the capital of China?
   o) What do you mean by Cold War?
   1x10

PART-A

Q.2   Define International Relations? Discuss its relevance in today's world.
   5

Q.3   Discuss India's Foreign Policy with China.
   5

Q.4   Write Short notes on:
   a) Non-Aligned Movement   b) BRIC
   5

Q.5   Write a short note on Climate change and explain the factors which promote it.
   5

Q.6   Discuss India's relationship with United States of America.
   5

Q.7   What were the main causes and consequences of 1st World War?
   5

Q.8   Write down the main factors for the end of Cold War.
   5

PART-B

Q.9   Write a descriptive note India's Foreign policy with special reference to Russia.
17½

Q.10   Write short notes on:
a) SAARC   b) UN
17½

Q.11   Write a note on International Terrorism and explain the role of social media in combating International Terrorism.
17½

End Semester Examination, May 2015

BJMC – Second Semester

INFORMATION TECHNOLOGY FOR MEDIA (BJ-203)

Time: 3 hrs Max Marks: **50**

No. of pages: 2

Note:**Q.1 is compulsory**. *Attempt any* **FIVE** *questions from* **Part A** *and any* **TWO** *questions* **from Part B**.

Q.1 Answer **any ten** of the following MCQ, each carry one mark:

a) The Collection of unprocessed items is _____.
   i) Information   ii) Data
   iii) Memory   iv) Reports

b) PARAM was developed by _____.
   i) C-DAC   ii) IIT Kanpur
   iii) BARC   iv) None of these

c) Programs written in an assembly language are converted into machine language in a computer by_____.
   i) Assembler   ii) Compiler
   iii) Processor   iv) Interpreter

d) A/an _____ converts and executes one statement at a time
   i) Compiler   ii) Interpreter
   iii) Converter   iv) Instructions

e) IC chips used in computers usually made up of _____.
   i) Silicon   ii) Lead
   iii) Chromium   iv) Gold

f) MS-DOS is a _____.
   i) System software   ii) Application software
   iii) Anti virus   iv) None of the above

g) A DNS translates a domain name into what?
   i) Binary   ii) Hex
   iii) IP   iv) URL

h) One who designs, writes tests and maintains computer programs is called a _____.
   i) Programmer   ii) User
   iii) Designer   iv) Operator

i) A collection of 8 bits is called
   i) Byte   ii) Word
   iii) Record   iv) None of the above

j) In _____ topology, network components are connected by only one cable
   i) Star   ii) Ring
   iii) Bus   iv) Mesh

k) Website is a collection of _____.
   i) HTML document   ii) Formula translation
   iii) Graphic files   iv) Hard drives

l) Computers on an Internet are identified by _____.
   i) E-mail address   ii) Street address
   iii) IP address   iv) None of the above

m) What is a cache memory?

n) Hybrid computer is a combination of _____ computer.

o) EDSAC stands for _____.

   1x10

PART-A

Q.2   What is multimedia? Write down the main components of multimedia.
4

Q.3   Write short notes on the followings:
   a) E-mail
   b) High level language
   c) Repeater
   d) Router
   4

Q.4   Differentiate the followings:
   a) CUI and GUI
   b) Hardware and Software
   c) Client and Server
   d) Impact and Non-impact printer
   4

Q.5   Write any five output devices and explain in detail about the CRT monitor.
4

Q.6   Convert the followings:
   a) Binary number 1000111_2 into decimal equivalent.
   b) Decimal number 53_{10} into binary equivalent.
   4

Q.7   What are the equipments required for using Internet? What are the advantages of internet?
4

Q.8   What is feedback on net?
4

Q.9   Write down the name and function of the tools available in the tool palette of QuarkXPress.
4

PART-B

Q.10 "Computers are used as a tool in media". Discuss with suitable example.
10

Q.11 Define the term 'Topology'. Explain the various types of topology used in networking.

10

Q.12 What is "generation" in computer terminology? List the various computer generations along with key characteristics of computers of each generation.
10

End Semester Examination, May 2015
BJMC – Second Semester
REPORTING AND EDITING (BJ-204)

Time: 3 hrs   Max Marks: **50**

No. of pages: 1

Note:**Q.1 is compulsory**. *Attempt any* **FIVE** *questions from* **Part A** *and any* **TWO** *questions* **from Part B**.

Q.1   Answer **any ten** of the following:
   a) What is gutter?
   b) What do you mean by fourth estate?
   c) What is dateline?
   d) What is scoop?
   e) What is tabloid?
   f) PTI stands for _____.
   g) Who is the editor of the Hindi Daily Newspaper "Dainik Jagaran"?
   h) What is cropping?
   i) What do you mean by stringer?
   j) What do you mean by anchor story?
   k) What is follow up?
   l) What is AP?
   m) Who is the Chairperson of Prasar Bharati?
   n) What is PCI?
   o) Who is known as the father of journalism?
      1x10

PART-A

Q.2   Discuss the hierarchy of a desk office in a newspaper organization.
       4

Q.3   What are the latest trends in print media industry? Discuss in detail.
       4

Q.4   What are the qualities of a sub editor?
       4

Q.5   What is editing? Discuss the elements of editing. Concept of news.
       4

Q.6   Write an article on any relevant issue.
       4

Q.7   Write a short note on news ideas and angels with examples.
       4

Q.8   Write a short note on inverted pyramid.
       4

Q.9   What are the challenges of a reporter? Discuss in detail.
      4

PART-B

Q.10 Write a detailed note on investigative and development reporting.
      10

Q.11 What is news value? Discuss the news values in examples.
      10

Q.12 How do you see the future of print media industry in the era of new media?
      10

End Semester Examination, May 2015
BJMC – Third Semester
COMMUNICATION THEORY (BJ-301)

Time: 3 hrs

Max Marks: **70**

No. of pages: 1

Note:**Q.1 is compulsory**. *Attempt any* **FIVE** *questions from* **Part A** *and any* **TWO** *questions* **from Part B**.

Q.1   Attempt **any ten** of the following:
   a) Define intrapersonal communication.
   b) What do you mean by feedback?
   c) What do you mean by encoding?
   d) Name any two traditional forms of communication.
   e) Write any two functions of mass communication.
   f) What do you understand by mass media?
   g) Hypodermic needle theory is also known as _____.
   h) What do you understand by Kinesis?
   i) What do you mean by body language?
   j) What is noise?
   k) What do you mean by crowd?
   l) "Who says what in which channel to whom with what effect?" model of communication was given by _____.
   m) Facial expression is a part of verbal communication. **(True/False)**
   n) What do you mean by culture?
   o) Give any examples of non verbal communication.
       1x10

PART-A

Q.2   Write a short note on two step flow theory of communication.
       5

Q.3   Discuss in detail the barriers of communication.
       5

Q.4   Write a short no cultivation theory of communication.
       5

Q.5   Write a short note on the seven C's of communication.
       5

Q.6   Explain briefly the Osgood model of communication.
       5

Q.7   Write a short note on non verbal communication.
       5

Q.8   With the help of a diagram discuss the process and elements of communication.
       5

Q.9   Write a short note on Agenda setting theory.
       5

PART-B

Q.10   Discuss in detail the Laswell model and the Shannon and Weaver's model of communication.
       17½

Q.11   Differentiate between group communication and mass communication citing suitable examples.
       17½

Q.12   Write a detailed note on intrapersonal communication.
       17½

End Semester Examination, May 2015
BJMC – Third Semester
ADVERTISING AND PUBLIC RELATIONS (BJ-302)

Time: 3 hrs

Max Marks: **70**

No. of pages: 1

Note:**Q.1 is compulsory**. *Attempt any* **FIVE** *questions from* **Part A** *and any* **TWO** *questions* **from Part B**.

Q.1   Attempt **any ten** of the following:
   a) What are the four P's of marketing mix?
   b) What do you mean by Press Release?
   c) Name any two Advertising Agencies of India.
   d) Name the person who started the first Newspaper of India?
   e) "Believe in the Best" is the Punch line of which company?
   f) Who is known as the Father of Public Relations?
   g) The word advertising comes from the Latin word _____.
   h) According to American Marketing Association "advertising is any _____of non-personal presentation and promotion of ideas, goods and services by an _____".
   i) Write down any two objectives of Advertising?
   j) Who is known as the father of Advertising?
   k) The abbreviation AIDA and POP stands for what?
   l) What do you mean by Direct Mail?
   m) "Public Relations is a two way communication process". **(True/False)**
   n) Name the city which took the initiative to start the First Newspaper of India.
   o) There are three types of public involved in Public Relations. **(True/False)**

   1x10

PART-A

Q.2   "Advertising has become an essential marketing activity in the modern era of globalization". Explain.
   5

Q.3   Explain the Role of Advertising in the Society.
   5

Q.4   Who are the Active Participants in Advertising?
   5

Q.5   What are the advantage and disadvantages of Internet Advertising?
   5

Q.6   Discuss in detail the various types of Advertising.
   5

Q.7   Briefly discuss the role of Public Relations in private sector.
   5

Q.8   Write a short note on the code of Public Relations Society of India (PRSI).
       5

Q.9   Write a short note on Internal and External public of public relations.
       5

PART-B

Q.10   Discuss in detail the historical growth and development of Public Relations in India.

       17½

Q.11   Define advertising appeals and write a descriptive note on the various departments of an advertising agency.
       17½

Q.12   Write down the golden rules of copy writing and Prepare an advertising script for Television.
       17½

End Semester Examination, May 2015

BJMC – Third Semester

PHOTOGRAPHY, DESIGN AND GRAPHICS (BJ-303)

Time: 3 hrs   Max Marks: **70**

No. of pages: 2

Note:**Q.1 is compulsory**. *Attempt any **FIVE** questions from **Part A** and any **TWO** questions **from Part B**.*

Q.1   Attempt **any ten** of the following:
  a) Magnesium fluoride is used in
      i)   Film emulsion
      ii) Lens coating
      iii) Printing paper bases
      iv) For producing the no. of colors
  b) A slave is
      i)   A remote flash trigger
      ii) A small tripod
      iii) Someone to carry your gear
      iv) None of the above
  c) The fastest color film available is
      i)   1000 ASA
      ii) 1600 ASA
      iii) 3200 ASA
      iv) 100 ASA
  d) Metol is a
      i)   Developing agent
      ii) Reducing agent
      iii) Both
      iv) None of the above
  e) What temperature should color film be developed at?
      i)   95 Degrees Celsius
      ii) 100 Degrees Celsius
      iii) 105 Degrees Celsius
      iv) 200 Degrees Celsius
  f) What is the simplest thing you can change on your camera to vary the depth of field?
      i)   The aperture of the lens
      ii) The flash
      iii) Plane mirror at 45 degree
      iv) Film
  g) Red color under green light would appear
      i)   Green
      ii) Blue
      iii) Black
      iv) White
  h) Panchromatic film is sensitive to
      i)   All light
      ii) All light bar red

iii) All light bar green
iv) Only to orange
i) Who coined the term 'photography'?
   i) Fox Talbot
   ii) Nicephore Niepce
   iii) Sir John Herschel
   iv) Robert Hook
j) Star and diffraction filters work due to
   i) Impurities put into the glass
   ii) Distortions in the glass
   iii) Scratches on the glass
   iv) Silver coating
k) What is aberration in a lens?
l) Name any two types of the printer.
m) DSLR stands for _____.
n) ASA stands for _____.
o) What is Pixel?
   1x10

PART-A

Q.2   Explain the 'rule of third' in Photography.
      5

Q.3   Discuss in detail about Hot and Cold Type in Typography.
      5

Q.4   What is the function of shutter? Write the various types of shutter used in camera.
      5

Q.5   How aperture affects the exposure in photography?
      5

Q.6   Explain the importance of designing in mass media.
      5

Q.7   Explain the various types of film used in photography.
      5

Q.8   What are the qualities of a photo journalist?
      5

Q.9   What are the points to be remembered while proceeding for the wild life photography?
      5

PART-B

Q.10 What is filter factor? Explain the various types of filter used in photography.
      17½

Q.11   What is digital sensor in a camera? Discuss in detail its advantages and disadvantages over film.
17½

Q.12   Discuss the various printing methods used in publishing.
17½

End Semester Examination, May 2015

BJMC – Third Semester

COMMUNICATION RESEARCH AND CONSUMER BEHAVIOUR (BJ-304)

Time: 3 hrs

Max Marks: **70**

No. of pages: 1

Note:**Q.1 is compulsory**. *Attempt any* **FIVE** *questions from* **Part A** *and any* **TWO** *questions* **from Part B**.

Q.1 Attempt **any ten** of the following:
   a) "Media research will involve looking at issues such as media content and audience". **(True/False)**
   b) Name any two organizations who conduct research.
   c) What do you mean by Research Problem?
   d) What is hypothesis?
   e) Name any three sources of information required for a Media researcher.
   f) Who is Harold Lasswell?
   g) Define Feedback studies.
   h) What do you mean by research method?
   i) The abbreviation 'INTERVIEW' stands for what?
   j) Define Participatory Observation.
   k) 'Open-ended questions are Yes/No type of questions' **True/False**
   l) What do you mean by inverted questioning?
   m) Name any two popular TV serials.
   n) 'Sampling is the process of selecting units from a population' **Yes/No**
   o) Define random sampling.
   1x10

PART-A

Q.2 Define SWOT and discuss in detail the SWOT analysis.
   5

Q.3 Discuss in detail the impact of media on consumer behavior.
   5

Q.4 Define Market and why market segmentation is required for any research department?
   5

Q.5 "Research is undertaken in order to enhance our existing knowledge" Justify the statement.
   5

Q.6 Distinguish between Fundamental and Applied Research.
   5

Q.7 Discuss in detail the various tools of Media Research.
   5

Q.8   Differentiate between Communication Research and Social Science Research.
      5

Q.9   Distinguish between Survey and Observation Method of Research.
      5

PART-B

Q.10 What do you mean by Media Research and discuss the importance of studying it in the present day?
      17½

Q.11 "Advertising completely depends on Circulation or reach of Media" Explain.
      17½

Q.12 Define Content Analysis and discuss the various steps involved in it with its key objectives.
      17½

End Semester Examination, May 2015

BJMC – Third Semester
ENVIRONMENTAL STUDIES (BJ-305)

Time: 3 hrs   Max Marks: **100**

No. of pages: 1

Note: *Attempt any **Eight** from **SECTION-A** and **Three** questions **from SECTION-B**.*

SECTION-A

Answer **any eight** of the following:

Q.1   Define Soil Erosion.
5

Q.2   Explain the causes of water pollution.
5

Q.3   What do you mean by Renewable and Non Renewable resources? Give examples.
5

Q.4   Write a short note on Soil pollution.
5

Q.5   Write a short note on Afforestation and Deforestation.
5

Q.6   What is a food web?
5

Q.7   Write a short note on endangered species.
5

Q.8   Write a short note on solid waste management.
5

Q.9   What do you understand by the term Marine pollution?
5

Q.10   Explain briefly the uses of forests.
5

SECTION-B

Answer **any three** of the following:

Q.11   Write a detailed note on Global warming.
20

Q.12   Discuss in detail the scope and importance of environmental studies.
       20

Q.13   What is an ecosystem? Discuss the structure and functions of an ecosystem.
       20

Q.14   Write a detailed note on disaster management.
       20

Q.15   What is Biodiversity? Discuss the threats to biodiversity.
       20

End Semester Examination, May 2015

BJMC – Fourth Semester
MEDIA ISSUES AND DEBATES (BJ-401)

Time: 3 hrs

Max Marks: **70**

No. of pages: 1

Note:**Q.1 is compulsory**. *Attempt any* **FIVE** *questions from* **Part A** *and any* **TWO** *questions* **from Part B**.

Q.1   Attempt **any ten** of the following:
a) RTI was introduced in India in the year_____ under_____ government.
b) Who is the Editor-in-Chief of the daily 'The Hindu'?
c) 'Nautanki' is a form of New Media'. (**True/False**).
d) What do you mean by 'Objectification of Women'?
e) What do you mean by 'Cub Reporter'?
f) Define 'Media Accountability'.
g) What is the punch line of Aaj Tak News Channel?
h) Name the Editor of the Magazine 'India Today'.
i) Who started the social networking site 'Facebook'?
j) Who is the Defence Minister of India?
k) What is sensational Journalism?
l) What do you mean by Grassroot Journalism?
m) Name any two recently released Bollywood movies.
n) Name any two traditional art forms of Haryana.
o) Name any two media organizations that are owned by Reliance Group.
1x10

PART-A

Q.2   'RTI is a strong weapon in the hands of common man' Elaborate the statement with suitable examples.
5

Q.3   Define media accountability and explain in detail the social responsibility of media at the time of crisis.
5

Q.4   'Television affects Children' supply your answer in favor of the statement.
5

Q.5   Write a descriptive note on the historical background of RTI and discuss its various features.
5

Q.6   "Media can be used as a tool of development" Discuss the statement with reference to women empowerment.
5

Q.7   Discuss the role of social media in the last general election campaign of 2014.
5

Q.8   Briefly discuss the concept of paid news in India.
        5

Q.9   Briefly explain the professional code of ethics for Journalists.
        5

PART-B

Q.10   'Yellow Journalism and Paid News are threat to the Indian Democracy' Justify the
        statement with suitable examples.
        17½

Q.11   Write a descriptive note on the portrayal of women in Indian advertisements.
        17½

Q.12   'Traditional Media can be instrumental for creating awareness among both the rural
        and urban people' Justify the statement with valid examples.
        17½

End Semester Examination, May 2015
BJMC – Fourth Semester
EVENT MANAGEMENT (BJ-402)

Time: 3 hrs

Max Marks: **70**

No. of pages: 1

Note: **Q.1 is compulsory**. *Attempt any* **FIVE** *questions from* **Part A** *and any* **TWO** *questions* **from Part B**.

Q.1   Attempt **any ten** of the following:
  a) Define event.
  b) What do you mean by a fund raising event?
  c) Give any two objective of an event.
  d) What is a formal event?
  e) Name any two informal events.
  f) Write any two advantage of using an event management company.
  g) What is Publicity?
  h) Media plays an important role in promotion of an event. **(True/False)**
  i) Name the 5 C's of an event.
  j) What is a feedback?
  k) What do you mean by an event evaluation?
  l) Event management is one of the fastest growing industries. **(True/False)**
  m) Budget is the key element of any event. **(True/False)**
  n) Hospitality is one of the publicity tools. **(True/False)**
  o) What do you mean by a risk assessment?
      1x10

PART-A

Q.2   Write a short note on key elements of an event.
        5

Q.3   Discuss an event evaluation in detail.
        5

Q.4   Discuss the role of publicity in a event management.
        5

Q.5   Discuss the importance of planning in an event.
        5

Q.6   Discuss the various qualities and role of an event manager.
        5

Q.7   Writer a short note on press conference.
        5

Q.8 Discuss in detail the role sponsors in an event.
     5

Q.9 Write a short note on budget and account keeping.
     5

PART-B

Q.10 What is a planning? Discuss in detail the various steps of planning process of an event.
      17½

Q.11 Write a sponsor proposal for an event.
      17½

Q.12 Write a detailed note on the importance and scope of event management in detail.

      17½

End Semester Examination, May 2015

BJMC – Fourth Semester
COMMUNICATION AND DEVELOPMENT (BJ-403)

Time: 3 hrs   Max Marks: **70**

No. of pages: 1

Note: **Q.1 is compulsory**. *Attempt any* **FIVE** *questions from* **Part A** *and any* **TWO** *questions* **from Part B**.

Q.1   Attempt **any ten** of the following:
a) Who is the author of the book "Mass Media and National Development"?
b) "Global Village" concept was developed by whom?
c) Who is the rural development minister of India?
d) The abbreviation MGNREGA stands for _____.
e) What do you mean by convergent?
f) A component in the communication process that we often send without being aware of it is _____.
g) The essential components of communication are _____.
h) The term "Development Communication" was first coined in the year _____ by whom?
i) "Development Communication is practiced in an unplanned & unsystematic manner" **(True/False)**
j) Name any two characteristic features of Development.
k) Name any three Characteristics of Cyber media.
l) What do you mean by "Third World Countries"?
m) Write down any three features of rural community?
n) Write down any three people related problems of rural development?
o) The abbreviation ICT4D stands for what?
     1x10

PART-A

Q.2   Information and communication technology has a greater role to play in both rural and urban development. Explain.
     5

Q.3   Write a short note on the components and characteristics of Development.
     5

Q.4   Discuss in brief the role of communication for development.
     5

Q.5   Explain in detail the importance of traditional media in development communication.
     5

Q.6   Briefly discuss the development experiences in the developing world.
     5

Q.7   Write a note on People's participation.
     5

Q.8 "Public awareness is the requirement of the day for development" Explain.
5

Q.9 Write a brief note on Urban Development.
5

PART-B

Q.10 Define Rural Development and Discuss in detail problems, objectives and strategies of it.
17½

Q.11 "Development of any nation depends on Women Empowerment". Justify the statement with suitable examples.
17½

Q.12 Explain in detail the role of Cyber Media and ICT in National Development.
17½

End Semester Examination, May 2015

BJMC – Fourth Semester

NEWSPAPER AND MAGAZINE JOURNALISM (BJ-404)

Time: 3 hrs

Max Marks: **70**

No. of pages: 1

Note: **Q.1 is compulsory**. *Attempt any* **FIVE** *questions from* **Part A** *and any* **TWO** *questions* **from Part B**.

Q.1   Attempt **any ten** of the following:
  a) What is print line?
  b) What is dateline?
  c) What is AFP?
  d) Name the first Hindi newspaper of India.
  e) Who was associated with Samvad Kaumudi?
  f) Name three magazines that are published for children.
  g) Name three business magazine of India.
  h) What do you mean by layout?
  i) Name the first newspaper of India.
  j) What is PTI?
  k) What is byline?
  l) Who is the editor of the Hindi daily newspaper 'Hindustan'?
  m) Who is known as the father of Indian Journalism?
  n) What is cropping?
  o) What is balloon?
    1x10

PART-A

Q.2   What are the features of magazine journalism? Discuss.
  5

Q.3   Discuss the qualities of a sub editor.
  5

Q.4   Discuss the importance of layout in print journalism.
  5

Q.5   What are the challenges of print media industry?
  5

Q.6   What are the elements for writing an editorial?
  5

Q.7   Write a profile of a renown personality.
  5

Q.8   Write a human interest story feature for a magazine.
  5

Q.9 Write a short note on the role of press in Indian Independence movement.
5

PART-B

Q.10 Write a detail note on the latest trends in print media industry.
17½

Q.11 Discuss the different types of magazines.
17½

Q.12 Write a detailed feature of your interest for a magazine.
17½

End Semester Examination, May 2015
BJMC – Fifth Semester
NEW MEDIA (BJ-501)

Time: 3 hrs

Max Marks: **70**

No. of pages: 1

Note:**Q.1 is compulsory**. *Attempt any* **FIVE** *questions from* **Part A** *and any* **TWO** *questions* **from Part B**.

Q.1   Attempt **any ten** of the following:
a) 'Puppetry' is a form of New Media. **(True/False)**
b) "Global Village" concept was poised by whom?
c) What do you mean by E-Commerce?
d) What do you mean by Citizen Journalism?
e) What do you mean by Digital Divide?
f) What do you mean by Multimedia?
g) Name the I & B Minister of India.
h) Define Information Super Highway.
i) Name any two features of Online Journalism.
j) Define editing?
k) Who is the founder of "Facebook" (a social networking site)?
l) Name any two cyber crimes.
m) What is blogging?
n) What is Audio Conferencing?
o) Who took the initiative for IT revolution in India?
1x10

PART-A

Q.2   Examine the role of Internet in social movements of India.
5

Q.3   Write a brief note on E-Governance.
5

Q.4   Distinguish between Online Media and Print Media.
5

Q.5   Briefly explain the technological changes in Media field.
5

Q.6   Write a short note on Information Superhighway.
5

Q.7   Write a brief note on the services provided by mobile phones.
5

Q.8   Write a note the impact of Online Journalism on Print Media.
5

Q.9   Briefly discuss on the concept of SMS Reporter started by Indian Television Industry.
       5

PART-B

Q.10   "Social Media: A Stimulating Force of Social Change" Justify the statement with suitable examples.
              17½

Q.11   Discuss in detail the growth and development of New Media with its pros and cons.

       17½

Q.12   Discuss in detail both the National Telecommunication Policy of 1984 and 1994.
       17½

End Semester Examination, May 2015
BJMC – Fifth Semester
MEDIA MANAGEMENT (BJ-502)

Time: 3 hrs

Max Marks: **70**

No. of pages: 1

Note: **Q.1 is compulsory**. *Attempt any* **FIVE** *questions from* **Part A** *and any* **TWO** *questions* **from Part B**.

Q.1   Attempt **any ten** of the following:
   a) What is traditional media?
   b) ANI stands for _____.
   c) Akashwani is a channel of AIR. (**True/False**)
   d) Who is Arnab Goswami?
   e) TRP stands for _____.
   f) What is twitter?
   g) What do you mean by news agency?
   h) Name the first English newspaper of India.
   i) Who is the Editor-in Chief of NDTV?
   j) What do you mean by Esprit De Corps?
   k) What do you mean by documentary?
   l) What is assignment desk?
   m) What do you mean by NSE?
   n) What is the full form of SEBI?
   o) Name any two business channels of India.
   1x10

PART-A

Q.2   Write a short note on Corporation.
   5

Q.3   Discuss the role and responsibilities of Media Manager.
   5

Q.4   Differentiate between Partnership and Trust.
   5

Q.5   Throw light on role of News agencies in media.
   5

Q.6   What is the procedure of starting a newspaper?
   5

Q.7   Write in detail about News Corporation.
   5

Q.8   Briefly explain different stages of production in Television Programming.
   5

Q.9   Explain FDI.
        5

PART-B

Q.10   Differentiate between the working pattern and organizational structure of Government and private media.
        17½

Q.11   Write a detail note on problem and prospects of small newspaper in India.
        17½

Q.12   Describe the role of news paper and television in the growth of Indian economy.
        17½

End Semester Examination, May 2015

BJMC – Fifth Semester

RADIO JOURNALISM (BJ-503)

Time: 3 hrs

Max Marks: **70**

No. of pages: 1

Note:**Q.1 is compulsory**. *Attempt any* **FIVE** *questions from* **Part A** *and any* **TWO** *questions* **from Part B**.

Q.1 Attempt **any ten** of the following:
   a) When did Radio Broadcasting start in India?
   b) What is Yuvvani ?
   c) The abbreviation ESD and OBV stands for _____.
   d) What is Community Radio?
   e) When did FM broadcasting start in India?
   f) Who was the first Controller of Broadcasting in India?
   g) When did Vividh Bharti services start in India?
   h) 'Mann Ki Baat' programme on AIR is hosted by _____.
   i) What is Radio Documentary?
   j) AIR/DD comes under _____.
   k) Name any two FM channels of AIR.
   l) Commercial services on Vividh Bharti started in _____.
   m) What is Voxpop?
   n) Who is the I and B Minister of India?
   o) Who is Ameen Sayani?
      1½x10

PART-A

Q.2 Write down the broadcasting guidelines for AIR.
   4

Q.3 How is writing for Radio different from Television? Explain.
   4

Q.4 What are the basic features and functions of Radio?
   4

Q.5 Write in brief about Satellite Radio.
   4

Q.6 What is Programme planning and conceptualization in Radio?
   4

Q.7 Write in brief about History of Radio in India.
   4

Q.8 Discuss the latest trends in Radio.
   4

Q.9 How is Radio talk different from Radio Discussion?
   4

PART-B

Q.10   Discuss in detail the various formats of Radio Programming.
17½

Q.11   What is Prasar Bharti Board? What are its main functions and objectives?
17½

Q.12   Write down the principles of writing for Radio news. How is writing for Radio different from Newspaper?
17½

End Semester Examination, May 2015

BJMC – Fifth Semester
TELEVISION JOURNALISM (BJ-504)

Time: 3 hrs

Max Marks: **70**
No. of pages: 1

Note: ***Q.1 is compulsory***. *Attempt any* **FIVE** *questions from* **Part A** *and any* **TWO** *questions* **from Part B**.

Q.1   Attempt ***any ten*** of the following:
  a) What is TAM?
  b) What is TRP?
  c) What do you mean by breaking news?
  d) What is Close-up?
  e) ENPS stands for _____.
  f) What do you mean by freelancing?
  g) What is dolly?
  h) FCP stands for _____.
  i) Who is the I and B minister of India?
  j) What do you mean by sting?
  k) Who is the anchor of "The Newshour"?
  l) FDI stands for _____.
  m) STAR stands for _____.
  n) Who is the director of the movie "PK"?
  o) What is shot?
      1x10

PART-A

Q.2   Write a short note on investigative journalism.
      5

Q.3   Describe the structure of a television news channel.
      5

Q.4   What is development journalism? Discuss its role in society.
      5

Q.5   Discuss the role of editor in television programming.
      5

Q.6   Explain different types of P to C. Discuss the steps one should keep in mind while doing it.
          5

Q.7   Throw light on role and responsibilities of a television reporter.
      5

Q.8   What do you mean by FDI? Explain in brief.
      5

Q.9 Discuss about current trends of television industry.
5

PART-B

Q.10 Write a detailed note on vocabulary used in television programme production.
17½

Q.11 Differentiate between working pattern of Government and Privately owned television channels.
17½

Q.12 Write a detailed news report on any relevant issue.
17½

End Semester Examination, May 2015

B. Sc. (Hotel Management) - First Semester
FOUNDATION COURSE IN FOOD PRODUCTION (FMS-HM-101)

Time: 3 hrs

Max Marks: **50**

No. of pages: 1

Note: *Attempt any* **SIX** *questions in all.* **Part-A is compulsory**. *Attempt any* **FIVE** *questions from* **Part-B**.

PART-A

Q.1   a)   **Write short notes on the following:**
        i)   Yeast.
        ii)   Wheat.
        iii)   Bran.
        iv)   Germ.
        v)   Endosperm.   **2x5**

   b)   **Fill in the blanks:**
        i)   _____ and _____ are connective tissues.
        ii)   _____ is the national soup of France.
        iii)   _____ is the cold mother sauce.
        iv)   Meat protein is called as _____.
        v)   _____ and _____ are Italian chesse.
        vi)   _____ and _____ are cold soups.
        vii)   Goujons, fillet, Darne, TronCon are cuts taken from _____.
        viii)   _____ is French for chicken.
        ix)   Weight of an egg ranges from _____ to _____.
        x)   Cooking of protein is called as _____.   **1x10**

PART-B

Q.2   Explain in detail the wheat grain.   **6**

Q.3   Write step by step procedure for making a brown chicken stock.   **6**

Q.4   Explain the methods of cooking with the help of a flow chart.   **6**

Q.5   Give a detailed recipe for Mayonnaise and explain the process of making Mayonnaise.
                                                         6

Q.6   Draw and explain the parts of a knife.   **6**

Q.7   Draw a neat labeled diagram showing all the primal cuts of a lamb.   **6**