Sai College, Bhilai
Half Yearly Exam 2021-22
Class-BCA-1
Subject-Web Technology

Max. -80

Note : Attempt any 3 questions from unit 1 & 2.
Attempt any 2 questions from unit 3.
Each question carries equal marks.

Unit-1

Q1) Explain Application of Internet? Discuss History of internet?   [10]
Q2) Differentiate between Internet and Intranet?   [10]
Q3) Explain DNS with suitable example?   [10]
Q4) Explain FTP, TELNET?   [10]
Q5) What is URL? Explain? Explain TCP/IP?   [10]

Unit-2

Q1) Explain Heading Tag and Anchor Tag?   [10]
Q2) Explain UL and OL Tags?   [10]
Q3) Explain following Tags with attributes?   [10]
    a) Table   b) img
Q4) Explain Frameset with suitable Example?   [10]
Q5) Explain Form Tag with suitable Example?   [10]

Unit-3

Q1) What is Selector explain types of selectors with example?   [10]
Q2) Write a Java Script Code to perform arithmetic operation?   [10]
Q3) Explain operators used in Java Script with example?

Sai Mahavidyalaya, Bhilai

Half Yearly Exam 2021-22

Class-BCA-I

Subject- Discrete Mathematics

mm = 80

NOTE- Attemt any two question for each unit

Unit-I

Q.1 (a) Prepare the truth table for the following statement.

$(p \Rightarrow q \wedge r) \vee (\sim p \wedge q)$

(b) State & prove De'Morgans Law for logical statement

(c) Write the following statements into symbolic form

(i) All students are not intelligent

(ii) I shall go to Agra, but I shall not see Taj Mahal

Unit-II

Q.2 (a) Write & prove associative law.

(b) Draw the simple circuit for the following switching function:

$F(x,y,z) = x.y.z + x.y'.z + x'.y'.z$

(c) Define partial order relation. Prove that the order relation $\leq$ is partial order relation in Boolean Algebra.

Unit-III

Q.3 (a) Convert the following function into disjunctive normal form.

$F(x,y,z) = [(x.y')'+z'].(z+x)'$

(b) Draw a brigde circuit for the following function

$f = (x'u+x'v's+yu+yv's) (x'+z+w'+v's) (y+z+w'u)$

(c) Draw a Binomial network for the following function

$a.b.c' + a.b'.c + a'.b.c + a'.b'.c'$

Objective Questions

1. Define logical equivalence.
2. Define Dulaity.
3. Property of Idemptotent Law.
4. Define list upper bound
5. Define Quantifiers

Date: 14-01-2022   [Max Marks: 80]

NOTE: All questions carry equal marks

UNIT-1 (Any-3)

1) What is computer? What are the benefit and dependencies of computer?

2) Draw a block diagram of a computer. Explain its components.

3) Perform the following number conversion:-
   (v) $(0111110101011.0011)_2 = (?)_{16}$
   (vi) $(152.25)_{10} = (?)_2$
   (vii) $(152.25)_{10} = (?)_8$
   (viii) $(2A.25)_{16} = (?)_{10}$

4) What is a logic gate? Explain type of logic gates.

UNIT-2 (Any-3)

1) What is output device? Explain any three.

2) Explain monitor and its type.

3) Write short notes on
   (i) MICR
   (ii) OCR

4) Explain 4 input devices with diagram.

UNIT-3 (Any-2)

1) Explain Bus and Register.

2) Describe RAM and its types.

3) What is CPU ? Explain the function of components of CPU.

Section -A

Q.1 Describe in brief:-.   (15)

(a). Soil erosion

(b). Mineral resource

(c). Energy flow in the ecosytem

(d).grass land ecosystem

(e). Biodiversity

(f). Food chain of forest

(g). Food chain of dessert

Section - B.   any four (20)

Q.1 Write the meaning of renewable and non - renewable resource with example.

Q.2 What is land degradation

Q.3 Write the meaning of producers, consumers and decomposers with reference to ecosystem

Q.4 Explain the desertification.

Q.4 Explain water resource.

Q.5 Explain food resource

Section - C.   (45)

Q. 1 what are natural resource? What are long term consequence of over - utilization and over - exploitation of forest resource? Describe in detail.

          Or

Explain mineral resource in detail ?

Q.2 What is ecosystem? Describe structure and function of an aquatic ecosystem.

          Or

Describe food chain , food web and ecological pyramids .

Q .3 Introduce the biodiversity and it's conservation.

          Or

Explain the value of biodiversity : consumptive use, productive use, social ethics.

B.C.A (Part I) EXAMINATION, 2022

Half Yearly

COMMUNICATION SKILLS

Time : Three Hours

Maximum Marks : 75

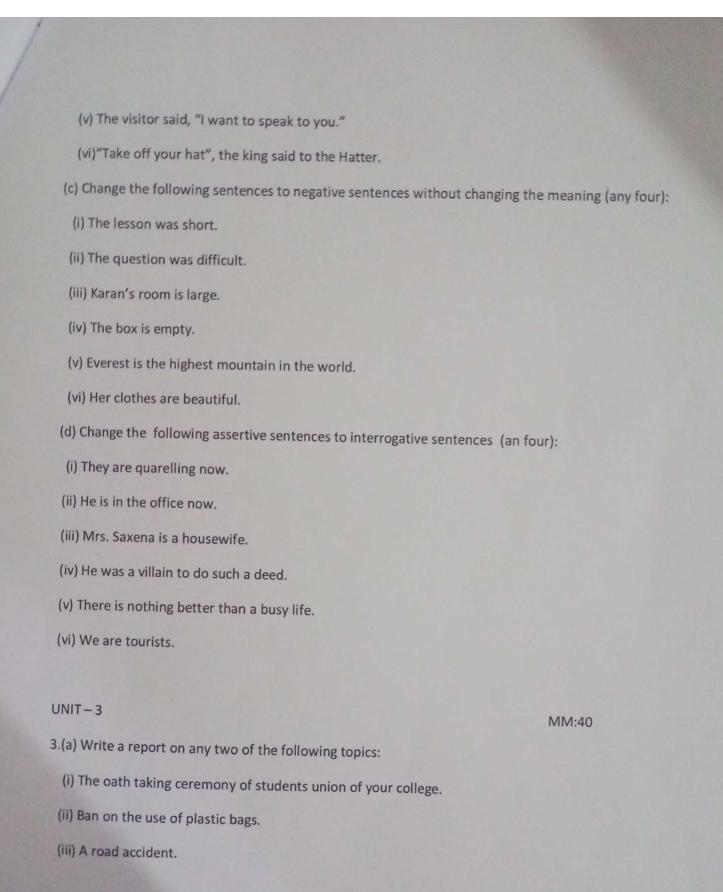**Note : Attempt all the question legibly.**

UNIT – 1   MM:20

1.(a) Change the following sentences into compound sentences (any three):

   (i) He must work very hard to win the first prize.

   (ii) His friend having helped him, he is prospering.

   (iii) Hearing their father's footsteps, the ran away.

   (iv) The referee having whistled, the game was stopped.

   (v) If you do not hurry you will miss the train.

(b) Change the following sentences into complex sentences (any three) :

   (i) He put on his hat and went outside.

   (ii) He is poor, but contented.

   (iii) The crow stole a piece of cheese and flew with it to a tree.

   (iv) I will get ready. Do not go till then.

   (v) I mended my watch this morning. It has stopped.

(c) Rewrite the following sentences using the correct form of the verb given in the bracket (any four):

   (i)My friends (see) the Prime Minister yesterday.

   (ii) The earth (move) round the sun.

   (iii)He (work) here for the last five years.

   (iv) She jumped off the bus while it (move).

   (v)He (ill) since last week.

   (vi) Perhaps we (visit) Mahabaleshwar next month.

(d) Fill in the blanks with suitable modals from the list given below (any three):

Will, Shall, Should, Can, Must, Dare

(i)I don't think I .... be able to go.

(ii)............... we posstpone the picnic to next week?

(iii)I .... Swim across the river.

(iv)You .... improve your spelling.

(v)He .... not ask for a rise, for fear of losing his job.

(e) Fill in the blanks with the gerund form or infinitive form of the verb given in the brackets (any three):

(i) Seeing is ....   (believe)

(ii) He went .... his father.   (see)

(iii) Would you mind .... a little ?   (wait)

(iv) I do not think she is ill, she is only pretending .... ill.   (be)

(v) He is fond of .... cards.   (play)

UNIT – 2   MM:20

2. (a) Change the voice (any four):

(i) Someone has stolen my wristwatch.

(ii) The man cut down the tree.

(iii) The mason is building the wall.

(iv) The horse was frightened by the noise.

(v) The town was destroyed by an earthquake.

(vi) The enemy had defeated our army.

(b) Change into indirect speech (any four):

(i) He said to me, "I have often told you not to play with fire."

(ii) "Sit down, boys", said the teacher.

(iii) He said, "Alas ! our foes are too strong."

(iv) She said to me, "What are you doing ?"

(v) The visitor said, "I want to speak to you."

(vi)"Take off your hat", the king said to the Hatter.

(c) Change the following sentences to negative sentences without changing the meaning (any four):

(i) The lesson was short.

(ii) The question was difficult.

(iii) Karan's room is large.

(iv) The box is empty.

(v) Everest is the highest mountain in the world.

(vi) Her clothes are beautiful.

(d) Change the following assertive sentences to interrogative sentences (an four):

(i) They are quarelling now.

(ii) He is in the office now.

(iii) Mrs. Saxena is a housewife.

(iv) He was a villain to do such a deed.

(v) There is nothing better than a busy life.

(vi) We are tourists.

UNIT – 3

MM:40

3.(a) Write a report on any two of the following topics:

(i) The oath taking ceremony of students union of your college.

(ii) Ban on the use of plastic bags.

(iii) A road accident.

SAI COLLEGE, SECTOR-6, BHILAI

B. C. A. (Part I) HALF YEARLY EXAMINATION, 2021-22

PROGRAMMING IN C

[Time: Three Hours]   *[Maximum Marks: 80]*

Note: Attempt any 3 parts from Unit I & II. Attempt any two questions from UNIT-III

Unit—I

1. (a) What is operator? Explain different types of operators used in C programming language.

   (b) Explain console formatted, unformatted I/O functions.

   (c) Differentiate between while and do-while statement.

   (d) What do you mean by Precedence of operators? Explain with example.

Unit—II

2. (a) Explain different string manipulation functions used in C Programming language.

   (b) What is function? Explain function prototype and function call statement with example.

   (c) What is recursion? Write a program for factorial of a number using recursion.

   (d) Differentiate between call by Value and call by reference with suitable example.

Unit—III

3. (a) Explain Nested Structure and its types with example of each type.

   (b) What is Union? How is union defined and declared?

   (c) Write a program to create union to store value of employee like employee name, employee id and salary. Also display all the contents of union.

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SAI COLLEGE SECTOR-6

HALF YEARLY EXAM (2021-2022)

CLASS: BCA I

SUBJECT: PC SOFTWARE & INTERNET APPLICATION

M.M-80   **TIME:3**

HRSNOTE: Attempt any THREE questions from unit1 & unit2 & attempt any TWO questions from unit 3.

UNIT 1

1(A) Explain mail merge features of Ms Word with suitable example.   (10)

(B) How can we create table in Ms Word? What are the different features of table? Explain with example.   (10)

(C) Explain illustration available in Ms Word.   (10)

(D) Explain word processor? Explain features of word processing?   (10)

Unit -2

2(A) What are different functions & formulas used in Ms- Excel?   (10)

(B) Explain types of chart used in Ms- Excel with example.   (10)

(C) Explain cell referencing in Ms Excel?   (10)

(D) Write short note on: (10)

    i.   Pivot table
    ii.   Filter & sort

Unit -3

3(A) What is Ms PowerPoint? Explain the procedure for creation of slides & assigning animation to these slides.   (10)

(B) Explain the slide show features of power point. Also explain slide set up using rehearse timing. (10)

(C) Explain slide transition in Ms Power Point with example.   (10)

Sai Mahavidyalaya,Bhilai
Half Yearly Exam 2021-22
Class-BCA-I
Subject- Bridge Course

Note-Attempt any two question from each unit of section A each unit carry 15 marks. Attempt all question from section B each question carry one marks.

Unit-I

Q.1 (a) Break $\dfrac{2x-5}{(x+3)(x+1)^2}$ into partial function.

(b) Find inverse of the matrix.
$$A=\begin{bmatrix} 1 & 2 & 1 \\ 0 & 1 & 2 \\ 0 & 0 & 1 \end{bmatrix}$$

(c) Evalute
$$\begin{vmatrix} 1 & a & b+c \\ 1 & b & c+a \\ 1 & c & a+b \end{vmatrix}$$

Unit-II

Q.2 (a) Prove that
$$^nC_{r-1}+{}^nC_r={}^{n+1}C_r$$

(b) Prove by the method of induction that
$$1+2+3+\ldots\ldots\ldots+n=\dfrac{n(n+1)}{2}$$

(c) Expant $(x^2+2a)^5$ by binomial expansion.

Unit-III

Q.3 (a) If $\cos\theta=\dfrac{4}{5}$, then prove that
$$\tan\theta+\sec\theta=2$$

(b) Prove that
$$\sin89°.\cos1°+\cos89°.\sin1°=1$$

(c) $\tan\theta=\dfrac{5}{12}$ then prove that
$$\dfrac{2\cos\theta-3\sin\theta}{2\cos\theta+3\sin\theta}=\dfrac{3}{13}$$

Section-B

1 Express e^{-x}

2 $\sin(666°)$

3 logarithmic series $\log(1+x)$

4 $\tan(A-B)$

5 $\sin(A+B)$