

GMFC LIBRARY



BCA SEM I

14-15

Question Papers

SSPES's
GOA MULTI – FACULTY COLLEGE
DHARBANDORA, GOA

Semester End Examination - I, OCTOBER 2014

Class: F.Y.BCA Sub: PROBLEM SOLVING AND PROGRAMMING CONCEPTS (BCA 101)

Max marks: 50

Duration: 2 Hours

Instruction: 1) All Questions are Compulsory
2) Figures to right indicate marks
3) Start each new question on a fresh page

- Q1) A) Give One term for the following (5 Marks)
- Input/ Output in C can be achieved using ----- and ----- functions.
 - What are the logical operators in C?
 - Give syntax for loop.
 - What is the use of goto keyword?
 - What is a program?

- B) State whether the following statements are True or False. (5 Marks)
- C programs are converted into machine language with the help of a program called Editor.
 - Every called function must contain a return statement.
 - The array `int num[26]` has twenty six elements.
 - If a file opened for writing already exists, its contents would be overwritten.
 - In C** operator is used for exponentiation operation

- Q2) Answer the following
- Write an algorithm for swapping two integer values. (2 Marks)
 - Draw a flow chart for computing Fibonacci numbers. (3 Marks)
 - Write a C program to find the biggest number among three given number. (5 Marks)

- Q3) Answer the following
- List out the rules for constructing character constants. (2 Marks)
 - Define Array. How to create a two dimensional array? (3 Marks)
 - Describe the components of a Computer in detail. (5 Marks)

- Q4) Answer the following
- Explain the White box testing and Black box testing. (3 Marks)
 - What is the difference between break and continue statement? (2 Marks)
 - Define a structure that can describe a student. It should contain members that include name, date of birth, and marks for three subjects. Write a program to read the data for 5 students and calculate the average mark for every student and display the details. (5 Marks)

Q5) Answer the following

a) What will be the output of the following program:

(3 Marks)

```
i) #include <stdio.h>
int main()
{
    int a=40;
    if (a>40 && a<45)
        printf("a is greater than 40 and less than 45\n");
    else
        printf("%d\n",a);
    return 0;
}
```

```
ii) #include <stdio.h>
int main()
{
    printf("%c\n", "abcdefgh"[4]);
    return 0;
}
```

b) Point out the errors, if any, in the following programs:

(2 Marks)

```
i) #include <stdio.h>
int main()
{
    struct
    {
        char bookname[25];
        float price;
    };
    struct book b={"Go Embedded",240.00};
    printf("%s %f\n",b.bookname,b.price);
    return 0;
}
```

```
ii) #include <stdio.h>
int main()
{
    int tag=0, code=1;
    if(tag==0)
        (code>1? printf("Hello\n") ? printf("Hi\n"));
    else
        printf("Hello Hi!!\n");
    return 0;
}
```

c) Explain the following types of files:

(5 Marks)

- i. Reading from a File
- ii. Writing a File

*****ALL THE BEST*****

SSPES's
GOA MULTI – FACULTY COLLEGE
DHARBANDORA, GOA
Semester End Examination - I, OCTOBER 2014

Class: F.Y.BCA Sub: COMPUTER ORGANIZATION AND ARCHITECTURE (BCA102)

Max marks: 50

Duration: 2 Hours

Instruction: 1) All Questions are Compulsory
2) Figures to right indicate marks
3) Start each new question on a fresh page

- Q1. A) Answer the following in one or two lines (5 Marks)
1. What are the different buses in a CPU?
 2. Draw symbols of AND gate.
 3. List any two key features in third generation computers.
 4. Define Tracks.
 5. What are the major components of the processor?
- B) State True or False for the following statements (5 Marks)
1. The access method used for magnetic tape is sequential.
 2. Execution of two or more programs by a single CPU is known as multiprogramming.
 3. Memories which can be read only are called RAM memories.
 4. One thousand bytes represent a Megabyte.
 5. The First Microprocessor was Intel 4004.
- Q2. Answer the following: (10 Marks)
- a) Write any two characteristics of Memory Systems. (2 Marks)
 - b) Elucidate the functions of I/O module. (3 Marks)
 - c) Describe any five Optical Memory in detail (5 Marks)
- Q3. Answer the following: (10 Marks)
- a) What are the features of ROM? (2 Marks)
 - b) Depicts the various process state in detail (3 Marks)
 - c) Discuss the swapping concepts in memory management. (5 Marks)
- Q4. Answer the following: (10 Marks)
- a) Draw the block diagram of a computer. (2 Marks)
 - b) Find the following differences using twos complement arithmetic: (3 Marks)
 - a. 111000
 - b. 111100001111
 - c) Explain the following Addressing Modes: (5 Marks)
 - a. Immediate
 - b. Register
 - c. Indirect

- Q5. Answer the following: (10 Marks)
- a) What are the elements of an instruction? (2 Marks)
 - b) Give explanation the following sequence of instructions: (3 Marks)
 - T1: $MAR \leftarrow (PC)$
 - T2: $MBR \leftarrow \text{Memory}$
 - $PC \leftarrow (PC) + 1$
 - T3: $IR \leftarrow (MBR)$
 - c) Discuss the Redundant Array of Inexpensive Disks levels in detail. (5 Marks)

*****ALL THE BEST*****

SSPES's
GOA MULTI-FACULTY COLLEGE
DHARBANDORA, GOA
F.Y. BCA Semester End Examination, October 2014

Semester I
Total No. of Questions: 05
Duration: 2 Hrs.

Business Accounting (BCA- 103)
Total No. of pages: 04
Maximum Marks: 50

Instructions: 1) *Question No. 1 is Compulsory.*

2) *Figures to the right indicate maximum marks allotted.*

3) *Provide sufficient margin space in the answer-book for recording marks.*

4) *Enter the appropriate main & sub-question numbers in the answer-book.*

5) *Show important working notes as fair work.*

Q1. State with reasons whether the following are Capital or Revenue Expenditure or Income:(5)

1. The redecoration expenses Rs. 6,000.
2. The installation of a new wine bar for Rs. 10,000.
3. The building of an extension of the club dressing room for Rs. 15,000.
4. The Purchased of Spirits Rs. 2,000.
5. The purchase of V.C. R and T.V. for the use in the club lounge for Rs. 15,000.

B. State the following transaction are True or False:

(5)

- 1) In accounting all business transaction are recorded as having a dual aspect.
- 2) An expenditure intended to benefit the current period is a revenue expenditure.
- 3) 'Salary paid in advanced' is not an expense because it neither reduces assets nor increases liabilities.
- 4) In the case of Insurance Policy Method, the Depreciation is created to the Asset Account.
- 5) The amount of salary paid to Suresh should be debited to Cash Account.

Q2. Company ltd. issued 10000 Equity shares of Rs. 10 each at a premium of Rs. 2 per shares and 10,000, 8%, Preference Shares of Rs. 10 each at a discount of 10% payable as under:

Particular	Equity shares	Preference shares
On application	Rs. 3	Rs. 3

On allotment	Rs. 5 (including Premium)	Rs. 2 (including Discount)
On first call	Rs. 2	Rs. 2
On final call	Rs. 2	Rs. 2

All the calls were duly made and the amounts were realized in cash.

(10)

OR

Q2.X. Machinery is purchased by B Ltd. on 1st July, 2004 for Rs. 50,000. The machinery is to be replaced at the end of 5th year for which purpose a Sinking fund is raised. It is expected that securities will earn 5% interest. Sinking Fund Table shows that amount for Re. 1 for 5 year at 5% interest Rs. 0.180975. B Ltd closes his books of account on 30th June every year.

At the end of the 5th year, securities realized @ 15% profit.

Show below account for all 5 years:-

1. Machinery Account
2. Sinking Fund Account
3. Sinking Fund Investment Account

(10)

Q3. From the following trial balance prepare the Trading and Profits & Loss account for the year ended on 31st March 2007 and the Balance sheet as on that date.

Particular	Dr.	Cr.
Capital		800000
Bank	452750	
Sales		1200000
Preliminary Expenses	15000	
Discount received		9500
Tools and Implement	22750	
Gas and Electricity	67500	
Opening Stock (1-4-2006)	12500	
Furniture	22000	
Bank Interest		1500
Debtors	17500	
Creditors		43500
Directors fees	25000	
Returns		15000
Repairs and renewals	43500	
Profits and Loss on (1-4-2006)		10500
Purchases	550500	

Bad Debts	6000	
15% Debentures		100000
Equipment	85000	
Wages and Salaries	244000	
Reserve		51000
Rents and Rates	72000	
Lease hold Premises	570000	
Travelling Expenses	23500	
Clearing Material	1500	
	2231000	2231000

Additional information:

- 1) Stock on 31st March 2007 was valued at Rs. 20000.
- 2) Accrued gas and Electricity Rs. 1000.
- 3) Write off 1/3 preliminary expenses.
- 4) Provide for depreciation:
 - a) Equipment 10%
 - b) Furniture 15%
 - c) Premises 5%

(10)

OR

Q3.X. Journalise the following transaction in the books of Shri. Herambh

2011 April 1 Herambh started business with cash Rs. 71000

2 Purchased goods from Mahesh Rs. 20000 on credit

5 Deposited cash into Bank of India Rs. 30000

9 Sold goods to Dhanraj Rs. 25000 on credit

11 Purchased furniture of Rs. 10000 on credit

14 Paid to Mahesh by cheque of Bank of India Rs. 10000

18 Received a bearer cheque for Rs. 15000 from Dhanraj

30 Paid Salary by cheque Rs, 4000

(10)

Q4.A) A plant is purchased for Rs. 6, 00,000 on 1st April, 2004. Some additions plant are purchased on 1st July 2004 for Rs. 1, 00,000. On 1st January 2006 an second hand plant costing Rs.

10000 was purchased and spend Rs. 2000 for repair. The company close books of account on 31st December every year. And they decided to charged depreciation under Written down Value at 10% p.a.

Prepare Plant Account for 2004,2005,2006,2007

(10)

OR

Q4.X) Prepare Trial Balance from the following ledger Of Shri. Ganesh as on 31 st March 2010

Particulars	Amount	Particulars	Amount
Capital	50000	Carriage	2500
Debtors	2500	Purchases	15000
Wages	3500	Salary	4500
Depriciation	1500	Sales	40000
Furniture	!2500	Postage	250
Advertisement	2500	Creditors	4000
Bad debts	600	Land and Building	45000
Bank loan	2000	Cash in hand	1250
Rent	2900	Drawings	1500

(10)

Q5.A. What is Accounting? Explain any five Concepts of Accounting Principal.

(10)

OR

Q5.X. Explain the meaning of Journal with definition And write importance and utility of Journal.

(10)

SSPES'S
GOA MULTIFACULTY COLLEGE
DHARBANDORA GOA

Semester End Examination I, October 2014

Class: FYBCA
Max marks: 50

Sub: Basic Mathematics
Duration : 2hrs

- INSTRUCTIONS:**
- 1) All questions are compulsory (choice is internal)
 - 2) Start each new question on fresh page
 - 3) Figures to the right indicate full marks
 - 4) Non - programmable calculators are allowed
 - 5) Graph paper and logbook provided on request

Q1 a) Answer the following

(1x5=5)

- i. $\int_0^1 e^x dx$ is _____
- ii. If $y = \sqrt[3]{x^4}$ then $y' =$ _____
- iii. If $9, \frac{9}{2}, \frac{9}{4}, \frac{9}{8}, \dots$ then what is the value of a & r ?
- iv. The conjugate of $-1+i$ is _____
- v. If a straight line passes through the points $(3, 4)$ and $(-1, 2)$ then its equation is _____

b) Answer the following

- i. Find S_{10} , if $T_n = 5n + 2$ (2)
- ii. Find X , if $\begin{bmatrix} 4 & 5 \\ 3 & 6 \end{bmatrix} + X = \begin{bmatrix} 10 & 1 \\ 0 & -5 \end{bmatrix}$ (2)
- iii. Diagonal of a cube is _____ (1)

Q2 Answer any two of the following:

(2x5=10)

a) Find $\lim_{x \rightarrow 3} \frac{x^3 - 4x - 15}{x^3 + x^2 - 6x - 18}$

b) Solve the equation by cramer's rule,

$$x + y + z = 5, \quad 3x - y - z = 11, \quad 4x + 2y + z = 20$$

c) Find $\frac{dy}{dx}$ for i) $y = \frac{(x-1)^2}{e^x}$

$$\text{ii) } y = \sqrt{3^x + 2}$$

(2x5 = 10)

Q3 Answer any two of the following

a) Evaluate i) $\int \sqrt{ax + b} \, dx$

ii) $\int x\sqrt{x} \, dx$

b) Find $\frac{dy}{dx}$ for i) $y = \log \sqrt{x^2 - 3x + 2}$

ii) $y = e^x(x^2 + 2x + 3)$

c) If $A = \begin{bmatrix} 3 & -1 & 2 \\ 4 & 3 & -5 \end{bmatrix}$ $B = \begin{bmatrix} -1 & 2 & 4 \\ 8 & -1 & 3 \end{bmatrix}$ $C = \begin{bmatrix} 8 & 2 & 4 \\ -2 & 3 & 7 \end{bmatrix}$

verify

i. $(A+B)^t = A^t + B^t$

ii. $A - (B - C) = A - B + C$

Q4 Answer any two of the following

(2x5 = 10)

a) Prove that ABCD is a parallelogram, if $A = (1, -2)$, $B = (5, 2)$, $C = (3, -1)$,

$D = (-1, -5)$

b) Show that $\begin{vmatrix} a+b+2c & a & b \\ c & b+c+2a & b \\ c & a & c+a+2b \end{vmatrix} = 2(a+b+c)^3$

c) Evaluate

i. $\int x^2 + 5x - 14 \, dx$

ii. $\int (2x - 1)^{-3} \, dx$

Q.5 Answer any two of the following

(2x5 = 10)

a) If $A = (3, -2)$ and $B = (5, 4)$ find the Ratio in which the y-axis divides AB. Is the division Internal or external?

b) Find inverse of the matrix A

if $A = \begin{bmatrix} 1 & 0 & -1 \\ -2 & -1 & 0 \\ -1 & 0 & 0 \end{bmatrix}$

c) Write down the equation of a line in each of the following cases

(2x5 = 10)

i. Passing through $A(4, -3)$ are having slope as -2

ii. Having the x and y-intercepts as 8 and 12 respectively.

SSPES's
GOA MULTI – FACULTY COLLEGE
DHARBANDORA, GOA

Semester End Examination - I, OCTOBER 2014

Class: F.Y.BCA

Sub: ENVIRONMENTAL STUDIES (BCA107)

Max marks: 25

Duration: 1 Hours

Instruction: 1) All Questions are Compulsory

2) Figures to right indicate marks

3) Start each new question on a fresh page

4) Draw the figures where ever necessary

Q.1 Explain the following questions in brief (ANY FIVE) (5 marks)

1. Relevance of environmental studies in the present context.
2. Methods of resource conservation.
3. Importance of forest.
4. Problems of big dams.
5. Explain the energy flow in an ecosystem.
6. Explain the ecological role of biodiversity.

Q.2 (A) "Agricultural practices are responsible for soil degradation". Justify. (10 Marks)

OR

(B) Interpret the future sources of energy with specific examples.

Q.3 (A) Enunciate on impact of mining activities on environment. (10 Marks)

OR

(B) Elucidate on ecological and economic benefits of biodiversity.



**SSPE'S
GOA MULTI – FACULTY COLLEGE
DHARBANDORA, GOA**

Semester End Examination - I, OCTOBER 2014

Class: F.Y.BCA

Sub: COMPUTER ORGANIZATION AND ARCHITECTURE (BCA102)

Max marks: 50

Duration: 2 Hours

- Instruction: 1) All Questions are Compulsory**
2) Figures to right indicate marks
3) Start each new question on a fresh page

- Q1. A) Answer the following in one or two lines (5 Marks)**
1. What are the different buses in a CPU?
 2. Draw symbols of AND gate.
 3. List any two key features in third generation computers.
 4. Define Tracks.
 5. What are the major components of the processor?
- B) State True or False for the following statements (5 Marks)**
1. The access method used for magnetic tape is sequential.
 2. Execution of two or more programs by a single CPU is known as multiprogramming.
 3. Memories which can be read only are called RAM memories.
 4. One thousand bytes represent a Megabyte.
 5. The First Microprocessor was Intel 4004.
- Q2. Answer the following: (10 Marks)**
- a) Write any two characteristics of Memory Systems. (2 Marks)
 - b) Elucidate the functions of I/O module. (3 Marks)
 - c) Describe any five Optical Memory in detail (5 Marks)
- Q3. Answer the following: (10 Marks)**
- a) What are the features of ROM? (2 Marks)
 - b) Depicts the various process state in detail (3 Marks)
 - c) Discuss the swapping concepts in memory management. (5 Marks)
- Q4. Answer the following: (10 Marks)**
- a) Draw the block diagram of a computer. (2 Marks)
 - b) Find the following differences using twos complement arithmetic: (3 Marks)
 - a. 111000
 - b. 111100001111
 - c) Explain the following Addressing Modes: (5 Marks)
 - a. Immediate
 - b. Register
 - c. Indirect

- Q5. Answer the following: (10 Marks)
- a) What are the elements of an instruction? (2 Marks)
 - b) Give explanation the following sequence of instructions: (3 Marks)
 - T1: $MAR \leftarrow (PC)$
 - T2: $MBR \leftarrow \text{Memory}$
 - $PC \leftarrow (PC) + 1$
 - T3: $IR \leftarrow (MBR)$
 - c) Discuss the Redundant Array of Inexpensive Disks levels in detail. (5 Marks)

*****ALL THE BEST*****



SSPE'S
GOA MULTI – FACULTY COLLEGE
DHARBANDORA, GOA

Semester End Examination - I, OCTOBER 2014

Class: F.Y.BCA Sub: PROBLEM SOLVING AND PROGRAMMING CONCEPTS (BCA 101)

Max marks: 50

Duration: 2 Hours

- Instruction: 1) All Questions are Compulsory**
2) Figures to right indicate marks
3) Start each new question on a fresh page

- Q1) A) Give One term for the following (5 Marks)
- Input/ Output in C can be achieved using ----- and ----- functions.
 - What are the logical operators in C?
 - Give syntax for loop.
 - What is the use of goto keyword?
 - What is a program?
- B) State whether the following statements are True or False. (5 Marks)
- C programs are converted into machine language with the help of a program called Editor.
 - Every called function must contain a return statement.
 - The array `int num[26]` has twenty six elements.
 - If a file opened for writing already exists, its contents would be overwritten.
 - In C** operator is used for exponentiation operation
- Q2) Answer the following
- Write an algorithm for swapping two integer values. (2 Marks)
 - Draw a flow chart for computing Fibonacci numbers. (3 Marks)
 - Write a C program to find the biggest number among three given number. (5 Marks)
- Q3) Answer the following
- List out the rules for constructing character constants. (2 Marks)
 - Define Array. How to create a two dimensional array? (3 Marks)
 - Describe the components of a Computer in detail. (5 Marks)
- Q4) Answer the following
- Explain the White box testing and Black box testing. (3 Marks)
 - What is the difference between break and continue statement? (2 Marks)
 - Define a structure that can describe a student. It should contain members that include name, date of birth, and marks for three subjects. Write a program to read the data for 5 students and calculate the average mark for every student and display the details. (5 Marks)

Q5) Answer the following

a) What will be the output of the following program:

(3 Marks)

```
i) #include <stdio.h>
int main()
{
    int a=40;
    if (a>40 && a<45)
        printf("a is greater than 40 and less than 45\n");
    else
        printf("%d\n",a);
    return 0;
}
```

```
ii) #include <stdio.h>
int main()
{
    printf("%c\n", "abcdefgh"[4]);
    return 0;
}
```

b) Point out the errors, if any, in the following programs:

(2 Marks)

```
i) #include <stdio.h>
int main()
{
    struct
    {
        char bookname[25];
        float price;
    };
    struct book b={"Go Embedded",240.00};
    printf("%s %f\n",b.bookname,b.price);
    return 0;
}
```

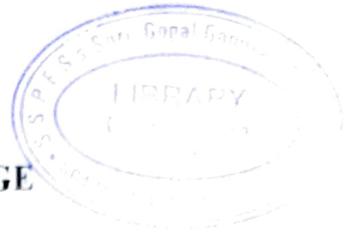
```
ii) #include <stdio.h>
int main()
{
    int tag=0, code=1;
    if(tag==0)
        (code>1? printf("Hello\n") ? printf("Hi\n"));
    else
        printf("Hello Hi!\n");
    return 0;
}
```

c) Explain the following types of files:

- i. Reading from a File
- ii. Writing a File

(5 Marks)

*****ALL THE BEST*****



SSPES's
GOA MULTI – FACULTY COLLEGE
DHARBANDORA, GOA
Semester End Examination - I, APRIL 2015

Class: F.Y.BCA
Max marks: 25

Sub: ENVIRONMENTAL STUDIES (BCA207)
Duration: 1 Hours

- Instruction: 1) All Questions are Compulsory**
2) Figures to right indicate marks
3) Start each new question on a fresh page

Q 1 Answer the following in brief (any five) (05)

1. Define solid waste
2. Earth quakes.
3. Effect of ozone depletion.
4. global warming
5. Value education.
6. Effects of acid rain.

Q2 A. Why climate is the most important factor affecting the distribution of population? (10)

OR

B. Explain the family welfare program. (10)

Q3 A. Bring out the measures at an individual and social level to prevent AIDS. (10)

OR

B. What an individual can do to protect wild life? (10)



SSPES's
GOA MULTI-FACULTY COLLEGE
DHARBANDORA, GOA
F.Y. BCA Semester End Examination, October 2014

Semester I

Total No. of Questions: 05
Duration: 2 Hrs.

Business Accounting (BCA- 103)
Total No. of pages: 04
Maximum Marks: 50

Instructions: 1) Question No. 1 is Compulsory.

2) Figures to the right indicate maximum marks allotted.

3) Provide sufficient margin space in the answer-book for recording marks.

4) Enter the appropriate main & sub-question numbers in the answer-book.

5) Show important working notes as fair work.

Q1. State with reasons whether the following are Capital or Revenue Expenditure or Income:(5)

1. The redecoration expenses Rs. 6,000.
2. The installation of a new wine bar for Rs. 10,000.
3. The building of an extension of the club dressing room for Rs. 15,000.
4. The Purchased of Spirits Rs. 2,000.
5. The purchase of V.C. R and T.V. for the use in the club lounge for Rs. 15,000.

B. State the following transaction are True or False:

(5)

- 1) In accounting all business transaction are recorded as having a dual aspect.
- 2) An expenditure intended to benefit the current period is a revenue expenditure.
- 3) 'Salary paid in advanced' is not an expense because it neither reduces assets nor increases liabilities.
- 4) In the case of Insurance Policy Method, the Depreciation is created to the Asset Account.
- 5) The amount of salary paid to Suresh should be debited to Cash Account.

Q2. Company Ltd. issued 10000 Equity shares of Rs. 10 each at a premium of Rs. 2 per shares and 10,000, 8%, Preference Shares of Rs. 10 each at a discount of 10% payable as under:

Particular	Equity shares	Preference shares
On application	Rs. 3	Rs. 3

On allotment	Rs. 5 (including Premium)	Rs. 2 (including Discount)
On first call	Rs. 2	Rs. 2
On final call	Rs. 2	Rs. 2

All the calls were duly made and the amounts were realized in cash.

(10)

OR

Q2.X. Machinery is purchased by B Ltd. on 1st July, 2004 for Rs. 50,000. The machinery is to be replaced at the end of 5th year for which purpose a Sinking fund is raised. It is expected that securities will earn 5% interest. Sinking Fund Table shows that amount for Re. 1 for 5 year at 5% interest Rs. 0.180975. B ltd closes his books of account on 30th June every year.

At the end of the 5th year, securities realized @ 15% profit.

Show below account for all 5 years:-

1. Machinery Account
2. Sinking Fund Account
3. Sinking Fund Investment Account

(10)

Q3. From the following trial balance prepare the Trading and Profits & Loss account for the year ended on 31st March 2007 and the Balance sheet as on that date.

Particular	Dr.	Cr.
Capital		800000
Bank	452750	
Sales		1200000
Preliminary Expenses	15000	
Discount received		9500
Tools and Implement	22750	
Gas and Electricity	67500	
Opening Stock (1-4-2006)	12500	
Furniture	22000	
Bank Interest		
Debtors		1500
Creditors	17500	
Directors fees		43500
Returns	25000	
Repairs and renewals		15000
Profits and Loss on (1-4-2006)	43500	
Purchases		10500
	550500	



Bad Debts	6000	100000
15% Debentures		
Equipment	85000	
Wages and Salaries	244000	51000
Reserve		
Rents and Rates	72000	
Lease hold Premises	570000	
Travelling Expenses	23500	
Clearing Material	1500	
	2231000	2231000

Additional information:

- 1) Stock on 31st March 2007 was valued at Rs. 20000.
- 2) Accrued gas and Electricity Rs. 1000.
- 3) Write off 1/3 preliminary expenses.
- 4) Provide for depreciation:
 - a) Equipment 10%
 - b) Furniture 15%
 - c) Premises 5%

(10)

OR

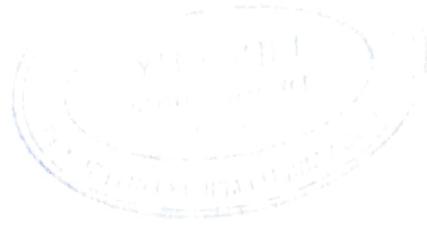
Q3.X. Journalise the following transaction in the books of Shri. Herambh

2011 April 1 Herambh started business with cash Rs. 71000

- 2 Purchased goods from Mahesh Rs. 20000 on credit
- 5 Deposited cash into Bank of India Rs. 30000
- 9 Sold goods to Dhanraj Rs. 25000 on credit
- 11 Purchased furniture of Rs. 10000 on credit
- 14 Paid to Mahesh by cheque of Bank of India Rs. 10000
- 18 Received a bearer cheque for Rs. 15000 from Dhanraj
- 30 Paid Salary by cheque Rs, 4000

(10)

Q4.A) A plant is purchased for Rs. 6, 00,000 on 1st April, 2004. Some additions plant are purchased on 1st July 2004 for Rs. 1, 00,000. On 1st January 2006 an second hand plant costing Rs.



10000 was purchased and spend Rs. 2000 for repair. The company close books of account on 31st December every year. And they decided to charged depreciation under Written down Value at 10% p.a.

Prepare Plant Account for 2004,2005,2006,2007

(10)

OR

Q4.X) Prepare Trial Balance from the following ledger Of Shri. Ganesh as on 31 st March 2010

Particulars	Amount	Particulars	Amount
Capital	50000	Carriage	2500
Debtors	2500	Purchases	15000
Wages	3500	Salary	4500
Depriciation	1500	Sales	40000
Furniture	!2500	Postage	250
Advertisement	2500	Creditors	4000
Bad debts	600	Land and Building	45000
Bank loan	2000	Cash in hand	1250
Rent	2900	Drawings	1500

(10)

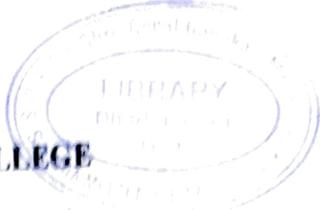
Q5.A. What is Accounting? Explain any five Concepts of Accounting Principal.

(10)

OR

Q5.X. Explain the meaning of Journal with definition And write importance and utility of Journal.

(10)



**SSPES'S
GOA MULTIFACULTY COLLEGE
DHARBANDORA GOA**

Semester End Examination I, October 2014

Class: FYBCA
Max marks: 50

Sub: Basic Mathematics
Duration : 2hrs

- INSTRUCTIONS:**
- 1) All questions are compulsory (choice is internal)
 - 2) Start each new question on fresh page
 - 3) Figures to the right indicate full marks
 - 4) Non - programmable calculators are allowed
 - 5) Graph paper and logbook provided on request

Q1 a) Answer the following

(1x5=5)

- i. $\int_0^1 e^x dx$ is _____
- ii. If $y = \sqrt[3]{x^4}$ then y' = _____
- iii. If $9, \frac{9}{2}, \frac{9}{4}, \frac{9}{8}, \dots$ then what is the value of a & r ?
- iv. The conjugate of $-1+i$ is _____
- v. If a straight line passes through the points $(3, 4)$ and $(-1, 2)$ then its equation is _____

b) Answer the following

- i. Find S_{10} , if $T_n = 5n + 2$ (2)
- ii. Find X , if $\begin{bmatrix} 4 & 5 \\ 3 & 6 \end{bmatrix} + X = \begin{bmatrix} 10 & 1 \\ 0 & -5 \end{bmatrix}$ (2)
- iii. Diagonal of a cube is _____ (1)

Q2 Answer any two of the following:

(2x5=10)

a) Find $\lim_{x \rightarrow 3} \frac{x^3 - 4x - 15}{x^3 + x^2 - 6x - 18}$

b) Solve the equation by cramer's rule,

$$x + y + z = 5, \quad 3x - y - z = 11, \quad 4x + 2y + z = 20$$

c) Find $\frac{dy}{dx}$ for i) $y = \frac{(x-1)^2}{e^x}$

$$\text{ii) } y = \sqrt{3^x + 2}$$

Q3 Answer any two of the following

(2x5=10)

a) Evaluate i) $\int \sqrt{ax + b} \, dx$

ii) $\int x\sqrt{x} \, dx$

b) Find $\frac{dy}{dx}$ for i) $y = \log \sqrt{x^2 - 3x + 2}$

ii) $y = e^x(x^2 + 2x + 3)$

c) If $A = \begin{bmatrix} 3 & -1 & 2 \\ 4 & 3 & -5 \end{bmatrix}$ $B = \begin{bmatrix} -1 & 2 & 4 \\ 8 & -1 & 3 \end{bmatrix}$ $C = \begin{bmatrix} 8 & 2 & 4 \\ -2 & 3 & 7 \end{bmatrix}$

verify

i. $(A+B)' = A'+B'$

ii. $A-(B-C) = A-B+C$

Q4 Answer any two of the following

(2x5=10)

a) Prove that ABCD is a parallelogram, if $A=(1,-2)$, $B=(5,2)$, $C=(3,-1)$,

$D=(-1,-5)$

b) Show that $\begin{vmatrix} a+b+2c & a & b \\ c & b+c+2a & b \\ c & a & c+a+2b \end{vmatrix} = 2(a+b+c)^3$

c) Evaluate

i. $\int x^2 + 5x - 14 \, dx$

ii. $\int (2x-1)^{-3} \, dx$

Q.5 Answer any two of the following

(2x5=10)

a) If $A = (3, -2)$ and $B = (5, 4)$ find the Ratio in which the y-axis divides AB. Is the division Internal or external?

b) Find inverse of the matrix A

if $A = \begin{bmatrix} 1 & 0 & -1 \\ -2 & -1 & 0 \\ -1 & 0 & 0 \end{bmatrix}$

c) Write down the equation of a line in each of the following cases

(2x5=10)

i. Passing through $A(4, -3)$ are having slope as -2

ii. Having the x and y-intercepts as 8 and 12 respectively.



SSPE'S
GOA MULTI - FACULTY COLLEGE
DHARBANDORA, GOA

Semester End Examination - I, OCTOBER 2014

Class: F.Y.BCA

Sub: ENVIRONMENTAL STUDIES (BCA107)

Max marks: 25

Duration: 1 Hours

Instruction: 1) All Questions are Compulsory

2) Figures to right indicate marks

3) Start each new question on a fresh page

4) Draw the figures where ever necessary

Q.1 Explain the following questions in brief (ANY FIVE) (5 marks)

1. Relevance of environmental studies in the present context.
2. Methods of resource conservation.
3. Importance of forest.
4. Problems of big dams.
5. Explain the energy flow in an ecosystem.
6. Explain the ecological role of biodiversity.

Q.2 (A) "Agricultural practices are responsible for soil degradation". Justify. (10 Marks)

OR

(B) Interpret the future sources of energy with specific examples.

Q.3 (A) Enunciate on impact of mining activities on environment. (10 Marks)

OR

(B) Elucidate on ecological and economic benefits of biodiversity.



Total No. of Questions: 10
Total No. of pages: 02

F.Y. BCA Semester End Examination
OPERATING SYSTEMS CONCEPTS (BCA202)
Semester: II

Duration: 2Hrs.

Maximum Marks: 50

Instructions as per subject:

- 1) All questions are compulsory
- 2) Figures to the right indicate marks

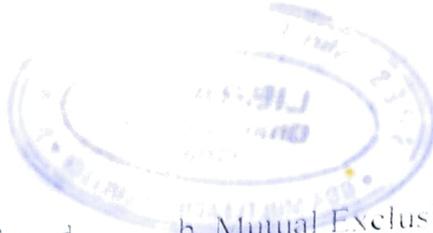
- Q1 A) Complete the statement by using appropriate word(s). (5x1 = 5)
- a) _____ allows a resource to be accessed by only one process at a time.
 - b) A _____ is a program in execution.
 - c) The page table shows the relation between virtual address and _____.
 - d) In _____ key encryption, same keys are used for encrypting and decrypting the information.
 - e) Algorithm in which page at the beginning of the list is replaced first is called _____.

- Q.1.B) State whether the following is True or False: (5x1 = 5)
- a) Telnet facility allows users to log in remotely.
 - b) A process can be ended before it is completed.
 - c) Program is an active entity and process is a passive entity.
 - d) Least recently used algorithm replaces the page that has been unused for longest time.
 - e) Multi-processor systems are also known as tightly coupled systems.

Q2) Answer the following questions:

- a) Explain the following terms: a. Graceful degradation b. Fault tolerant. 2 Marks
- b) Explain the concept of circular wait. Draw a suitable diagram. 3 Marks
- c) State any three advantages and two disadvantages of Web based operating systems. 5 Marks

P.T.O.



Q3) Answer the following questions:

a) Define the following terms: a. Thread

b. Mutual Exclusion.

2 Marks

b) State and briefly explain any three user authentication methods.

3 Marks

c) Draw a graph based on the following requests to be served in C-SCAN disk scheduling policy. 98, 183, 37, 122, 14, 124, 65, 67. Consider the disk head is initially at cylinder 53 and head direction is towards 65.

5 Marks

Q4) Answer the following questions:

a) State any two objectives of file management systems.

2 Marks

b) What is remote procedure call? Diagrammatically explain the various steps involved in the process.

3 Marks

c) Write a note on process scheduling.

5 Marks

Q5) Answer the following questions:

a) Define the following terms: a. Paging

b. Segmentation.

2 Marks

b) Write a short note on Interrupt-driven I/O.

3 Marks

c) Compare LRU and FIFO methods of page replacement with suitable examples.

5 Marks