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KKP-6141 Seat No. _____

B. C. A. (Sem. - III) Examination

November / December – 2014

BCA-301 : Object Oriented Programming C++

Time : 3 Hours]

[Total Marks : 70

- | | | |
|---|---|----|
| 1 | (a) Do as directed : | 6 |
| | (i) What is object ? | |
| | (ii) What is bool data type ? | |
| | (iii) Which symbol used for scope resolution operator in C++. | |
| | (iv) What is use of delete operator ? | |
| | (v) What is inheritance ? | |
| | (vi) C++ allows us to declare a variable anywhere in the program. (True/False). | |
| | (b) Attempt the following : (any three) | 12 |
| | (i) Explain reference variable with example. | |
| | (ii) Write short note on scope resolution operator. | |
| | (iii) Explain switch statement with syntax and example. | |
| | (iv) Explain the memory management operator. | |
| 2 | (a) Do as directed : | 5 |
| | (i) Constructor is automatic call when object is created. (True/False). | |
| | (ii) What is function prototyping ? | |
| | (iii) What is overloaded constructor ? | |
| | (iv) What is destructor ? | |
| | (v) In which situation we cannot use inline function ? | |

- 12
- (b) Attempt the following : (any **three**)
- Explain function overloading with example.
 - Write short note on static data members.
 - Explain copy constructor with example.
 - Write short note on friend function.
- 3** (a) Do as directed : 6
- List the operators which are not overloaded.
 - How to define operator function.
 - How many arguments are required to overloaded binary operator using friend function.
- (b) Attempt the following : (any **three**) 12
- Explain binary operator overloading using members function.
 - Explain class to class type conversion with example.
 - Write a C++ program to overload binary minus operator.
 - Explain string manipulation using operator overloading.
- 4** (a) Do as directed : 5
- What is pure virtual function ?
 - What do you mean by abstract class ?
 - Virtual function are accessed by using object points. (True/False)
 - List out all kind of inheritance.
 - What is static linking ?
- (b) Attempt the following : (any **two**) 12
- Explain multilevel inheritances with example.
 - Write short note on this pointer.
 - Explain virtual function.



KKP-6142 Seat No. _____

B.C.A. (Sem. III) Examination

November / December – 2014

BCA - 302 : ADBMS

(Advance Database Management System)

Time :

Hours]

[Total Marks : 70]

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|----------|------------|--|-----------|
| 1 | (a) | Attempt the following : (any three) | 6 |
| | | (i) BETWEEN operator. | |
| | | (ii) Set operator | |
| | | (iii) DML. | |
| | | (iv) What is NOT NULL ? | |
| | (b) | Attempt the following : (any three) | 12 |
| | | (i) Explain Join with example. | |
| | | (ii) Explain Different types of constraints. | |
| | | (iii) Explain Agggregate function in detail. | |
| | | (iv) Explain subquery in detail. | |
| 2 | (a) | Attempt the following : (any four) | 8 |
| | | (i) Difference : procedure and function. | |
| | | (ii) Explain sequence. | |
| | | (iii) Explain different types of view. | |
| | | (iv) Structure of PL/SQL Block | |
| | | (v) Explain If condition in PL/SQL. | |

(b) Attempt the following : (any three)

9

- (i) What is index ? Explain different types of index.
- (ii) Explain cursor and its types.
- (iii) What is the use of Exception Handling ? Explain it.

3

(a) Attempt the following : (any three)

6

- (i) Define Decision support system.
- (ii) Explain join complexity.
- (iii) What is operational Data store ?
- (iv) Explain Loud operation.

(b)

Attempt the following : (any two)

12

- (i) Explain OLAP in detail.
- (ii) Explain Data Warehouse and Data must in detail.
- (iii) Explain Data mining.

4

(a) Answer the following : (any two)

12

- (i) Define failure. Explain transaction recovery.
- (ii) Describe any five objective of distributed database.
- (iii) Explain Encryption in detail.

(b)

Attempt the following : (any two)

5

- (i) Explain ACID properties.
- (ii) Define different types of lock.
- (iii) What is the use of Audit trail ?

(b) Attempts any two :

- (1) Obtain initial basic feasible solution for the given problem by N.W.C.M, L.C.M., V.A.M. 10

		Destinations				Supply
		D	E	F	G	
Sources	A	11	13	17	14	250
	B	16	18	14	10	300
	C	21	24	13	10	400
Demand		200	225	275	250	

- (2) Find optimal solution for the following T.P.

		Destinations				Supply
		I	II	III	IV	
Sources	A	15	10	17	18	2
	B	16	13	12	13	6
	C	12	17	20	11	7
Demand		3	3	4	5	

- (3) Determine the optimal assignment schedule for the following :

		Job			
		A	B	C	D
Persons	I	10	12	19	11
	II	5	10	7	8
	III	12	14	13	11
	IV	8	15	11	9



KKP-6143 Seat No. _____
Second Year B. C. A. (Sem. - III) Examination

November / December – 2014

303 : Statistics & Optimization Technique

Time : 3 Hours]

[Total Marks : 70]

- 1 (a) Answer the following questions : 8
- (1) Quartiles divide a series into _____ equal parts.
 - (2) Which measure of dispersion is ideal ?
 - (3) Standard deviation is independent of change of _____ but not of _____.
 - (4) List out the measure of central tendency.
 - (5) _____ dispersion is used to compare two series.
 - (6) Find C.V. of 11, 11, 11, 11, 11.
 - (7) What is mean deviation of observation having equal values ?
 - (8) _____ mode of -5, -7, -1, -2, -5, -5, 1, 2.
- (b) Attempt any two : 10
- (1) Calculate the mean and median for the following distribution :

Marks	0-20	20-40	40-60	60-80	80-100
Frequency	3	17	27	20	09

- (2) Find the standard deviation from the following :

Class	0-10	10-20	20-30	30-40	40-50	50-60	60-70
Frequency	2	6	12	16	22	18	14

- (3) The runs scored by two batsman in a season are given below. Which batsman may be regarded dependable ?

A	60	45	105	45	25	40	40	90	45	5
B	25	45	35	70	60	60	45	35	100	25

- 2** (a) Answer the following questions :
- (1) If two variables are perfectly positively correlated $r = \underline{\hspace{2cm}}$. **1**
 - (2) In rank correlation if $\sum d^2 = 0, r = \underline{\hspace{2cm}}$. **1**
 - (3) The two regression coefficients are 0.8 and 0.2 hence correlation coefficient is $\underline{\hspace{2cm}}$. **1**
 - (4) The value of r^2 lies between $\underline{\hspace{2cm}}$ and $\underline{\hspace{2cm}}$. **1**
 - (5) Give example of positive and negative correlation. **1**
 - (6) What is correlation coefficient ? **2**
- (b) Attempt any two : **10**
- (i) From the following data calculate the co-efficient of correlation by Karl Pearson's method :

X	6	2	10	4	8
Y	9	11	9	8	7

Arithmetic mean of x and y series are 6 and 8 respectively.

- (ii) From the following data obtain the two regression equations :

x	3	2	-1	6	4	-2	5	7
y	5	13	12	-1	2	20	0	-3

- (iii) Find r using rank correlation method :

x	36	56	20	65	42	33	44	50	15	60
y	50	35	70	25	58	75	60	45	80	30

- 3** (a) Answer the following :
- (i) Give the difference between PERT and CPM. **3**
 - (ii) Explain the following terms :
 - (i) Activity
 - (ii) Event.

- (iii) Define :
- (i) Basic Feasible solution
 - (ii) Objective Function
 - (iii) Constraints. **3**
- (b) Attempt any two : **10**
- (i) Use the simplex method to solve the following L.P.P.
Max. $Z = 3x_1 + 4x_2$
Subject to $2x_1 + 3x_2 \leq 16$
 $2x_1 + x_2 \leq 8$
AND $x_1, x_2 \geq 0$
 - (ii) Solve the following L.P.P. by graphical method
Max $Z = 3x_1 + 4x_2$
Subject to $2x_1 + 5x_2 \leq 120$
 $4x_1 + 2x_2 \leq 80$
and $x_1, x_2 \geq 0$
 - (iii) Draw a network diagram for the following activity :
- | Activity | A | B | C | D | E | F |
|----------------------|---|---|---|----|---|----|
| Predecessor Activity | - | A | A | BC | - | DE |
| Duration | 2 | 3 | 4 | 6 | 2 | 8 |
- 4** (a) Answer the following :
- (1) What is unbalance Transportation problem ? How can it be balance ? **4**
 - (2) Explain Degeneracy in transportation problem. **2**
 - (3) List out the method to find out initial basic feasible solution in transportation problem. **1**

(b) Any two out of three :

12

- (1) How ERP is tonic for an organization.
- (2) Define the term Data Ware Hovel & Data Mining.
- (3) Explain future directors of ERP.

4 (a) Define the term intranets & extranets.

5

OR

(a) What is Customer Relationship ?

(b) Any two out of three :

12

- (1) Explain product life cycle management.
- (2) Explain reason for ERP growth in an organization.
- (3) Define OLAP & EIS & DSS.



KKP-6144-45 Seat No. _____

B. C. A. (Sem. III) Examination

November / December - 2014

BCA-304 : Elective - I

1. Computer Networks (New Course)

2. Enterprise Resource Planning

Time : 3 Hours

[Total Marks : 70]

1. Computer Networks (New Course)

1 (a) Answer the following : (Any three) 6

- (1) What is MAC address ?
- (2) What is topology ?
- (3) What is multiplexing ?
- (4) Define end office.

(b) Answer the following : (Any three) 12

- (1) Explain the telephone structure.
- (2) What is computer network ? Explain type of it.
- (3) Explain TCP / IP reference model.
- (4) Difference between FDM & TDM.

2 (a) Answer the following : (Any five) 5

- (1) List out types of Propagation.
- (2) What is solitons ?
- (3) What is modem ?
- (4) What is undirectional antennas ?
- (5) What is Photons ?
- (6) What is Band Width ?

(b) Answer the following : (Any three) 12

- (1) Explain broad band co-axial cable.
- (2) Explain fiber optics.
- (3) Explain twisted pair.
- (4) Explain microwaves and milimeter waves.

3 (a) Answer the following : (Any three) 6

- (1) Define Router.
- (2) Explain half duplex & full duplex.
- (3) What is supernetting ?
- (4) Define bridge.

(b) Answer the following : (Any three) 12

- (1) Explain all class of IP address in detail.
- (2) Explain Asynchronous Data link protocol.
- (3) Explain BSC frame.
- (4) Explain HDLC.

4 (a) Answer the following : (Any five) 5

- (1) Full form of PDA.
- (2) Define mobile computing.
- (3) What is wi fi ?
- (4) What is smart phone ?
- (5) What is wireless communication ?
- (6) Full form of CDMA.

(b) Answer the following : (Any three) 12

- (1) Explain GPRS in detail.
- (2) Explain EDA in detail.
- (3) Explain tablet computer.
- (4) Explain GSM in detail.

2. Enterprise Resource Planning

1 (a) Why ERP used now ? Explain Reasons for failure of ERP. 6

OR

(a) Explain general Model of ERP.
(b) Any two out of three :

- (1) Define the term Integrated Data model.
- (2) Define BPR & SCN.
- (3) Role of vendor in ERP implementation.

2 (a) Explain GIAP analysis & lead time in ERP. 5

OR

(a) Explain any one ERP module.
(b) Any two out of three :

- (1) Define ERP implementation life cycle.
- (2) Explain about different ERP packages in short.
- (3) Explain cost of ERP implementation.

3 (a) Define interrelated term ERP & E-Commerce. 6

OR

(a) Limitation of ERP in an organization.