

Pre-Final Test Examination, 2021

H.S. Second Year (Arts)

Sub : Computer Science

Full Marks : 70

Time: 3 hours

(The figures in the margin indicate full marks for the questions.)

1) Answer the following questions :

1x10=10

তলত দিয়াবোৰৰ উত্তৰ দিয়া :

(a) What is Token?

Token কি ?

(b) Why main function special? Give two reason?

Main function কিয় special কাৰণসমূহ দেখুওৱা।

(c) Explain the transitive nature at Inheritance?

Transitive nature at Inheritance বিৱৰণ দিয়া।

(d) What is function prototypes?

Function prototypes কি হয় ?

(e) What is copy constructor?

Copy constructor মানে কি ?

(f) What is Inheritance?

Inheritance মানে কি বিৱৰণ দিয়া।

(g) Which header file required for creating and manipulating data file in c++?

File operation কোনটো header file ব্যৱহাৰ কৰা হয়।

(h) What is meant by stack?

Stack মানে কি ?

(i) What is primary key a table?

Primary key table বুলিলে কি বুজা ?

(j) What are DDL and DML?

DDL আৰু DML মানে কি ?

2. Answer the following questions :

2x12=24

তলত দিয়াবোৰৰ উত্তৰ দিয়া :

(a) What is the difference between 'a' and "a" in c++?

'a' আৰু "a" মাজৰ পাৰ্থক্য বিৱৰণ দিয়া।

(b) Differentiate between a run time error and system error. Give one example at each?

Run time error আৰু system error মাজৰ পাৰ্থক্য কি?

(c) What is the difference between object and class?

Object আৰু class মাজৰ পাৰ্থক্য কি?

(d) What is function overloading? Write an example at using c++?

Function overloading কি উদাহৰণ দাঙি দেখুওৱা।

(e) How does a class enforce data hiding abstraction and encapsulation.

(f) What do you understand by a default constructor what is its role? How is it equivalent to a constructor having default argument.

(g) How does inheritance influence the working of constructors and destructors?

Constructor আৰু destructors কেনেকৈ inheritance প্ৰভাৱ পেলায় বহলাই লিখা।

(h) Write the difference between static memory allocation and dynamic memory allocation?

Static আৰু dynamic memory allocation মাজৰ পাৰ্থক্য কি?

(i) Write the difference between stack and queues?

stack আৰু queues মাজৰ পাৰ্থক্য বহলাই লিখা।

(j) Obtain a simplified form for a boolean expression POS form equation. Simplify the POS form.

$$F(u, v, w, z) = \pi (0, 1, 3, 5, 6, 7, 10, 14, 15)$$

(k) Design a circuit diagram to realize the following :

$$F(a, b, c) = AB + \overline{AC} + \overline{B}AC$$

Circuit টোৰ চিত্ৰ আঁকি দেখুওৱা।

(l) Differentiate between data definition language and data manipulation language.

DML আৰু DDL ৰ পাৰ্থক্য কি?

3. Answer the following questions :

3x7=21

তলত দিয়াবোৰৰ উত্তৰ দিয়া :

(a) Reduce the expression $\overline{xy} + \overline{x} + xy$.

Equation টো reduce কৰা।

(b) Represent $(\overline{A} + \overline{B} + \overline{C})(A + \overline{B} + \overline{C})(A + B + \overline{C})$ in NOR-to-NOR logic network.

NOR-to-NOR logic gate ৰ চিত্ৰ অংকণ কৰা।

(c) Simplify the boolean expression using karnaugh's map.

$$F(a, b, c, d) = \sum(0, 1, 2, 4, 5, 7, 8, 9, 10, 11, 14)$$

Boolean expression K-map সহায়ত simplify কৰা।

(d) What is a data base system? What is its need?

Data base system কাক বোলে আৰু ইয়াৰ দৰকাৰ কি?

(e) What are various data model available for data base system?

Data base system model ৰ বিৱৰণ দাঙি ধৰা।

(f) What is polymorphism? Give an example in c++ to show its implementation in c++?

উদাহৰণৰ সহায়ত polymorphism বহলাই লিখা।

(g) What is the difference between the function at IOS :: ate and ios :: app fill modes?

IOS :: ate আৰু ios :: app মাজৰ পাৰ্থক্য কি?

4. Answer the following questions :

5x3=15

তলত দিয়াবোৰৰ উত্তৰ দিয়া :

(a) Write a c++ program linear search in array?

Linear search ৰ ব্যৱহাৰ দেখুৱাবলৈ এটা c++ program লিখা।

(b) Write a c++ program for sum at matrices?

দুটা মেট্ৰিক্স যোগ কৰিবলৈ এটা c++ program লিখা।

(c) Write a c++ program about bubble sort?

Bubble sort দেখুৱাবলৈ এটা c++ program লিখা।

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