Roll No : .....

Total No. of Questions : **11**] [Total No. of Printed Pages : **3**

SP–704

M.Sc. (Final) Examination, 2021

COMPUTER SCIENCE

Paper – MCS–205 (A)

(Data Warehouses Data Mining)

Time : 1½ Hours] [*Maximum Marks : **50***

Section–A **(Marks : 2 × 10 = 20)**

Note :– Answer all *ten* questions (Answer limit **50** words). Each question carries **2** marks.

(खण्ड–अ) **(अंक : 2 × 10 = 20)**

नोट :– सभी **दस** प्रश्नों के उत्तर दीजिए (उत्तर-सीमा **50** शब्द)। प्रत्येक प्रश्न **2** अंक का है।

Section–B **(Marks : 3 × 5 = 15)**

Note :– Answer all *five* questions. Each question has internal choice (Answer limit **200** words). Each question carries **3** marks.

(खण्ड–ब) **(अंक : 3 × 5 = 15)**

नोट :– सभी **पाँच** प्रश्नों के उत्तर दीजिए। प्रत्येक प्रश्न में विकल्प का चयन कीजिए (उत्तर-सीमा **200** शब्द)। प्रत्येक प्रश्न **3** अंक का है।

Section–C **(Marks : 5 × 3 = 15)**

Note :– Answer any *three* questions out of five (Answer limit **500** words). Each question carries **5** marks.

(खण्ड–स) **(अंक : 5 × 3 = 15)**

नोट :– पाँच में से किन्हीं **तीन** प्रश्नों के उत्तर दीजिए (उत्तर-सीमा **500** शब्द)। प्रत्येक प्रश्न **5** अंक का है।

Section–A

1. (i) Define Data Warehouse.

   (ii) Define Star Schema.

   (iii) Define Data Mining.

   (iv) What do you mean by Arithmetic Mean ?

   (v) Define Decision Tree.

   (vi) What is Cross Validation ?

   (vii) What do you mean by association rules ?

   (viii) Define Apriori principle.

   (ix) Define Cluster Analysis.

   (x) What do you mean by DBSCAN ?

Section–B

2. What are the features of Data Warehouse ?

   Or

   Describe OLAP.

3. Describe Data Mining Tasks.

   Or

   Describe Data Quality.

4. Describe various classification techniques.

   Or

   What are the measures of node impurity ?

5. Describe frequent item sets.

   Or

   Describe Apriori algorithm.

6. Describe cluster analysis in detail.

Or

Describe basic clustering methods.

Section–C

7. Differentiate data warehouse and data marts.

8. Explain data objects and types of attributes.

9. Write short notes on the following :

   (i) Random Sub-sampling

   (ii) Bootstrap

10. Explain FP growth algorithm with example.

11. Explain DBSCAN in detail.