



Name : .....

Roll No. : .....

Invigilator's Signature : .....

**CS/M.Sc (IS)/SEM-2/MI-201/2011**

**2011**

**LIBRARY AND INFORMATION SCIENCE**

Time Allotted : 3 Hours

Full Marks : 70

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words  
as far as practicable.*

**GROUP – A**

**( Multiple Choice Type Questions )**

1. Choose the correct alternatives for the following :  $10 \times 1 = 10$ 
  - i) The mode of formation of the subject 'Oceanography' is an example of
    - a) Fusion
    - b) Clustering
    - c) Distillation
    - d) None of these.
  - ii) The subject 'Research in Computer Science' contains
    - a) a basic subject only
    - b) an isolate only
    - c) a basic subject and an isolate
    - d) none of these.



- iii) The broad discipline 'Cognitive Science' includes the subject
- a) English literature      b) Political Science
- c) Psychology      d) Physiology.
- iv) The broad discipline of 'Natural Science' is represented in Dewey Decimal Classification scheme by the number
- a) 200      b) 800
- c) 500      d) 700.
- v) The number of areas exists in a catalogue is
- a) 5      b) 6
- c) 7      d) 8.
- vi) The 'Author Productivity' is expressed by
- a) Zipf's law
- b) Ranganathan's law
- c) Lotka's law
- d) Bradford's law.
- vii) One Petabyte of information is equal to
- a) 1000 Terabyte      b) 1000 Exabyte
- c)  $(10)^{12}$  Byte      d) None of these.
- viii) An increase in entropy of an information system indicates the change from
- a) order to chaos      b) chaos to order
- c) no change      d) none of these.



- ix) 'Newspaper' is an example of
- primary source of information
  - secondary source of information
  - tertiary source of information
  - none of these.
- x) Increase in 'Loss' of an information system will decrease the
- precision
  - recall
  - hit
  - none of these.

### GROUP – B

#### ( Short Answer Type Questions )

Answer any *three* of the following.  $3 \times 5 = 15$

- Define 'Universe of subjects' and 'Library classification'. State how 'Universe of subjects' was classified by Melvil Dewey in his Decimal Classification Scheme.  $2 + 3$
- Identify the fundamental categories and basic subject of the following title :  
"Calculation of stellar radiation by spectroscopic method in Indian Institute of Astrophysics during 2010".
- What is 'Keyword' ? Distinguish between 'Keyword' and 'Word'. Describe with examples different kernels of a keyword.  $1 + 2 + 2$
- State and explain Bradford's law and Lotka's law of informetrics.



**GROUP – C**

**( Long Answer Type Questions )**

Answer any *three* of the following.  $3 \times 15 = 45$

6. Describe in detail the role of libraries and information centres in modern society. Define 'Proliferation of subjects' and 'information explosion'. How these two concepts are related ?  $9 + 4 + 2$
7. Discuss different types of data generally used in different areas of sciences. State and explain different properties of data. Define 'Documentary chaos'. How this 'Chaos' can be controlled ? Explain with examples.  $6 + 6 + 3$
8. What is 'Knowledge society' ? Elucidate the evolutionary stages of primitive society towards knowledge society. Discuss with examples the following modes of formation of subjects :
  - a) Lamination
  - b) Distillation
  - c) Cluster.  $3 + 4 + 8$
9. Establish mathematically that no subject can grow indefinitely. Describe the 'Vicious triangle of information abuse'. State and explain Brookes' fundamental equation of information.  $8 + 4 + 3$

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