

B.E. (Computer Technology) Eighth Semester (C.B.S.)  
**Elective – IV : Cognitive Science**

P. Pages : 2

Time : Three Hours



**TKN/KS/16/7691**

Max. Marks : 80

- Notes :
1. All questions carry marks as indicated.
  2. Solve Question 1 OR Questions No. 2.
  3. Solve Question 3 OR Questions No. 4.
  4. Solve Question 5 OR Questions No. 6.
  5. Solve Question 7 OR Questions No. 8.
  6. Solve Question 9 OR Questions No. 10.
  7. Solve Question 11 OR Questions No. 12.
  8. Due credit will be given to neatness and adequate dimensions.
  9. Assume suitable data whenever necessary.

1. a) What is cognitive science ? And what are the characteristics of representation ? **7**  
b) Explain the concept of Analog and Digital Representation in detail. **6**

**OR**

2. a) What is dual-coding Hypothesis? Explain computational steps involved in addition problem. **7**  
b) Explain in detail categories of Mental Representation. **6**
3. a) What is philosophy ? Explain various flavors of Dualism. **7**  
b) What do you mean by functionalism ? According to functionalism Explain which different physical substrates can in principle all give rise to mind. **7**

**OR**

4. a) How free will-Determinism Debate is evaluated ? Explain. **6**  
b) Explain Knowledge Acquisition problem in detail along with evaluation process. **8**
5. a) Explain the concept of structuralism. **6**  
b) Demonstrate several of the Gestalt principles of perceptual organization. Explain using diagrams. **8**

**OR**

6. a) Write a detail note on – Mini Minds : Mechanism and Psychoanalytic Psychology. **7**  
b) How Behaviorist Approach is evaluated ? Explain. **7**

7. a) Explain in detail the cognitive approach: Mind on an Information Processor. 7  
b) What do you mean by Modularity of Mind ? Explain Evaluating the Modular Approach. 6

**OR**

8. a) Explain various early steps in the recognition of a stimulus object. 7  
b) Define following terms: 6  
i) Attention. ii) Selective attention.  
iii) Divisible attention. iv) Shiftability.

9. a) Define Memory. Describe various types of memory. 7  
b) Explain the Kosslym and Schwartz Theory of Visual Imagery. 6

**OR**

- 10 a) What is problem solving ? Enlist various characteristics of problem solving suggested by Anderson. 7  
b) Write a note on The General Problem Solver Model. 6
11. a) What are the different categories of procedure for collecting data in Neuroscience. 7  
b) Explain various Brain Recording Techniques. 6

**OR**

12. a) Describe in detail Anatomy of a neuron. 7  
b) Explain the concept of Prosopagnosia. 3  
c) Write a note on: Distributed Network Model. 3

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