

**M.C.A. SEM - IV (CHOICE BASED CREDIT SYSTEM 2011 &  
2012 COURSE ) : SUMMER - 2018**

**SUBJECT: DESIGN PATTERNS & HCI (8535)**

Day: **Monday**  
Date: **30/04/2018**

**S-2018-1798**

Time: **10.00 AM TO 01.00 PM**  
Max Marks. 100

---

**N.B.**

- 1) Attempt **ANY FOUR** questions from Section – I and attempt **ANY TWO** questions from Section – II.
  - 2) Answers to both the sections should be written in the **SAME** answer book.
  - 3) Figures to the right indicate **FULL** marks.
- 

**SECTION - I**

- Q.1** What is HCI? Describe goals of it. (15)
- Q.2** Name and illustrate design pattern used for the system where system should be configured with one of the multiple families of product. (15)
- Q.3** If system is using hundreds of fine grained object of same type to represent; which design pattern you choose and why. (15)
- Q.4** Illustrate command design pattern with its indent, structures, participants, applicability and consequences. (15)
- Q.5** Illustrate how strategy design pattern is useful if there are families of algorithms and we can use one of them. (15)
- Q.6** Write short notes in ( **ANY THREE** ) (15)
- a) Interpreter
  - b) Factory method
  - c) Composite
  - d) Eight golden rules of HCI
  - e) Error prevention

**SECTION - II**

- Q.7** Illustrate when to use proxy design pattern with example.
- Q.8** Weather data object is used to have three displays viz. current statistics, average day statistics and weather forecasting. Whenever there is change in weather data object other three uses updated data. Illustrate which design pattern you choose. (20)
- Q.9** List HCI models and describe when to use which. (20)