

**B. TECH. (CBCS - 2014 COURSE) SEM -VIII (E & TC ENGG.)  
: SUMMER - 2018**

**SUBJECT : ELECTIVE – II : SYSTEM ON CHIP**

Day : **Saturday**  
Date : **09/06/2018**

**S-2018-4728**

Time : **02.30 PM TO 05.30 PM**  
Max. Marks : 60

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**N. B. :**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
  - 3) Draw neat and labeled diagram **WHEREVER** necessary.
  - 4) Assume suitable data, if necessary.
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- Q. 1** What are the challenges in SOC design? How to improve design process? **(10)**  
**OR**
- Q. 1** What are the fundamental trends of SOC design? Explain in brief. **(10)**
- Q. 2** What are the six major issues in SOC design? Describe any two in detail. **(10)**  
**OR**
- Q. 2** What are the hardware trends? Draw and explain simple system structure. **(10)**
- Q. 3** How centric SOC architecture is implemented? **(10)**  
**OR**
- Q. 3** Explain memory system and configurability. **(10)**
- Q. 4** How SOC is used as a network of interacting components? **(10)**  
**OR**
- Q. 4** Which are the types of concurrency and system architecture? **(10)**
- Q. 5** Discuss pipelining for processor performance improvements. **(10)**  
**OR**
- Q. 5** How processor is optimized to match hardware? **(10)**
- Q. 6** What are the trends in SOC design today? Discuss in brief. **(10)**  
**OR**
- Q. 6** Explain SOC design transition. **(10)**

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