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Total No. of Pages : 02

Total No. of Questions : 09

**B.Tech. (CE) (2018 Batch) (Sem.-4)**  
**MATERIALS, TESTING AND EVALUATION**  
**Subject Code : BTCE-402-18**  
**M.Code : 77645**

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :**

1. **SECTION-A** is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

**SECTION-A****Q1. Answer briefly :**

- a) What is the use of Frog in Bricks?
- b) Write a short note on use of Plastics in Civil Engineering.
- c) Write the name of different test to be carried out on coarse aggregates.
- d) What is the difference between bleeding and segregation? Write one cause of each.
- e) Explain Spray Painting is superior to painting by brushes.
- f) Wrought Iron cannot be adopted for making Castings. Why?
- g) Write a short note on Concrete hollow Blocks.
- h) Flyash is a.....material.
- i) Write a note on Acoustical material.
- j) Define the term Creep. How do you measure the creep in cement concrete?

**SECTION-B**

- Q2. Enumerate various defects in timber.
- Q3. What do you understand by Interlocking Tiles? What are its advantages?
- Q4. State some general properties of Glass.
- Q5. What do you understand by the term Admixtures? What is its role in Cement concrete?
- Q6. Write a note on Geo-synthetics.

**SECTION-C**

- Q7. What is the importance of Structural Steel? Write its characteristics and mechanical behavior.
- Q8. A bungalow with open verandah and flat roof is to be constructed in Chandigarh. Write briefly about the construction materials you specify for the following parts of the building giving reasons for your choice :
- a) Foundation
  - b) Brick masonry
  - c) Cement concrete beams and columns
  - d) Roof
  - e) Floor
- Q9. What are forces responsible for causing natural defects in timber? Discuss methods adopted for protection of timber.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**