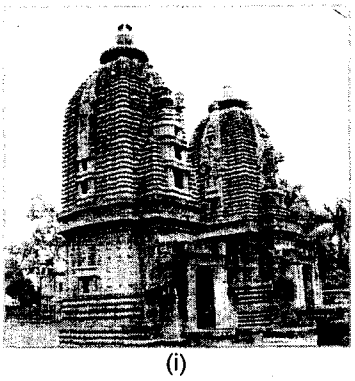
B. Arch Part - II Mid Semester Examination, 2012-13
Bengal Engineering and Science University, Shibpur

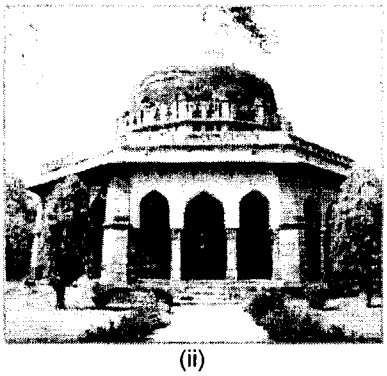
Subject: Evolution of Architecture-II (AR – 301)

Time: 3 hours **Full Marks: 70**

Attempt all questions. Draw neat sketches with appropriate annotations wherever necessary.

1. *Identify the following structures, their locations (town level) and period of construction (Any FIVE).* **[5 x (1+½+½) = 10]**


(i)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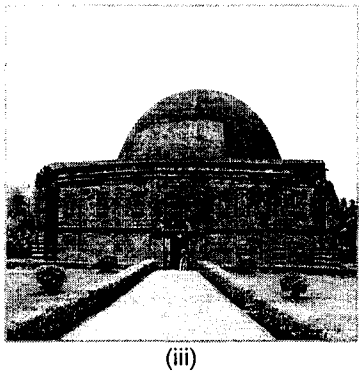
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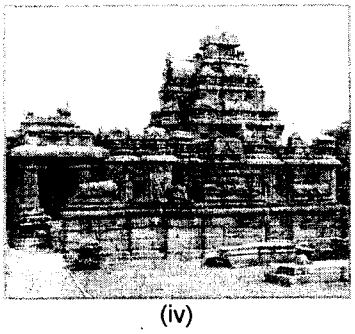
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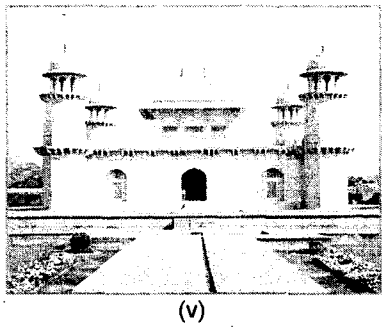
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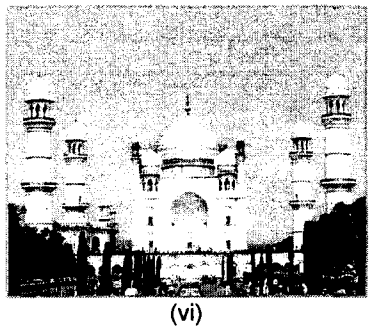

(vi)

2. *Differentiate between the following pair of terms (Any FIVE). Draw diagrams wherever required.* **[5 x 3 = 15]**

(i) Asthana, Adhisthana	(ii) Mandala, Mandapa	(iii) Panjara, Kanjura	(iv) Sandhara, Nirandhara
(v) Maqsurah, Maqbara	(vi) Bhamati, Jagati,	(vii) Liwan, Iwan	(viii) Opus-Sectile, Opus-Alexandria

3. *Answer the following questions (Any FIVE).* **[5 x 7 = 35]**

(i) Describe how the planning of "Humayun's Tomb" can be geometrically interpreted through Vedic Mandala system as well as Persian Planning concepts.

(3½ + 3½)

(ii) Illustrate the concept and evolution of 'Fractal' geometry applied on Chandella temples in India. Mention its utility on reducing use of materials in such cases.

(5 + 2)

(iii) Major construction materials of medieval Indian temples are varieties of sand-stones, granite, basalt, marble, brick/terracotta and wood. Develop a zone map in this regard within geographic boundary of medieval India. Compare the major differentiable features of 'marble' and 'terracotta' temples in terms of iconographic expressions with suitable examples and sketches.

(4 + 3)

(iv) Describe the major features of "Assembly Hall" observed in 'Nagara' temples constructed under different dynasties with suitable examples and illustrations.

As per your judgment, mention the best and worst dynasty in connection with designing the same and also highlight your interpretations.

(5 + 2)

(v) Compare the major architectural features between 'Royal' and 'Religious' clusters of Fatehpur Sikri, Agra in connection with façade treatments.

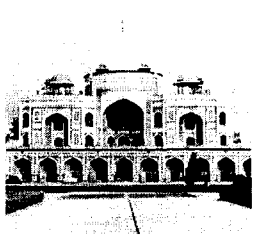
Suppose, you are asked to select only one structure / element / space as an icon of 'Fatehpur Sikri'. Select the same and explain the reason/s.

(4 + 3)

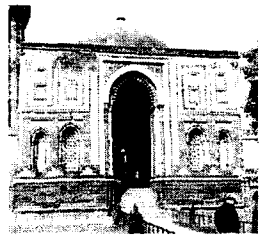
(vi) Define "Trompe l'oiel", "Arabesque" and "Pietra-Dura". Describe with appropriate illustrations and examples, how these three features / concepts were amalgamated with the architectural mannerism of Emperor Shahjahan.

(3 + 4)

(vii) Arrange the following structures in chronological order.

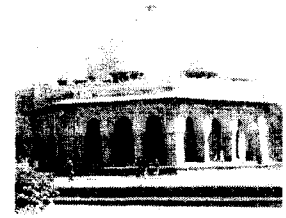


(a)



(b)

(c)



(d)

Explain the evolution of domes in Mosques / Islamic Tombs of medieval India with suitable examples and diagrams. In this connection, explain the importance of "squinch".

(2 + 4 + 1)

4. *Read the following and answer accordingly.* **[10]**

Recently Durga Puja in Kolkata has become a grand celebrating event exhibiting various traditional and innovative art forms. Overall design and decoration is usually structured based on some cultural, historical or social themes. The theme covers structure and decoration of pandels, design of deity and illumination.

A reputed neighbourhood club of Kolkata selects a theme "Dravidian Temple Architecture" for forthcoming Durga Puja. The motto is to develop a fusion based design focusing predominantly Pallava, Chola and Hoysala art and architecture of south India. The executing committee decides to appoint a professional for the theme design and execution. Assume yourself as the right person to deliver the design.

Before going to the final contract, the organizers request you to develop a preliminary scheme on a modular gate-complex for the pandel. The gate will be located 10 m. away from the main street. Length, height and width of the gate are restricted to maximum 9 m., 6 m. and 2 m. respectively. The width of the opening will be not less than 3.5 m. for entrance of larger vehicle during emergency / any hazard.

Major issues of the design will be as follows:

- The design should focus a smooth blend of Pallava, Hoysala and Chola architecture
- It should consider the visibility range of the spectator
- It should consider the illumination aspects
- The design should be simple and easy to construct with locally available and low-cost materials
- The design must have appropriate protection measures from any anthropogenic and fire damage.

Develop the scheme and represent it suitably through drawings in appropriate scale and/or proportionate sketches.