Q1. The design of internet advertisement systems is:
Pick the correct option.

    a. An auction design problem
    b. An information retrieval (IR) problem
    c. Both A and B
    d. None of the Above

Q2. There are N buyers competing for a single ad slot in a click-through auction. Consider the problem of maximising welfare. Each buyer i is defined by their bid v_i that represents the value for a click, which is reported by the buyer and a click-through rate (CTR) r_i that specifies the probability of a click. The ideal solution for the auctioneer is to choose the ad:
Pick the correct option.

    a. Maximizing $r_i + v_i$
    b. Maximizing $r_i * v_i$
    c. Minimizing $r_i + v_i$
    d. Minimizing $r_i * v_i$

Q3. A probing mechanism is truthful when :
Pick the correct option.

    a. It does not remain truthful when composed with any downstream auction mechanism that is not truthful by itself.
    b. It does not remain truthful when composed with any downstream auction mechanism that is truthful by itself.
    c. It remains truthful when composed with any downstream auction mechanism that is not truthful by itself.
    d. It remains truthful when composed with any downstream auction mechanism that is truthful by itself.

Q4. Eligibility mechanisms must satisfy the property that:
Pick the correct option.

    a. For any agent, whenever this agent is chosen by the mechanism, the action of this agent cannot affect which other agents are also chosen.
    b. For any agent, whenever this agent is chosen by the mechanism, the action of this agent can affect which other agents are also chosen.
    c. None of the above

Q5. In the paper, the combined problem of designing a first-stage probing mechanism and a second-stage auction mechanism in order to maximize the social welfare resulted from the overall allocation is defined considering:
Pick the correct option.

    a. Adaptive probing
    b. Nonadaptive probing
    c. Both A and B
    d. None of the above

Q6. In the paper, the approximation factor of the Constant-Factor Eligibility Mechanism when m=1 is (m corresponds to the number of ad slots to be allocated):
Pick the correct option.

    a. 2e/(e+1)
    b. 2e/(e+2)
    c. 2e/(e-2)
    d. 2e/(e-1)

Q7. Summarize the contribution of the paper in max 200 words.

Q8. Summarize the limitations of the paper in max 300 words.