**COMSATS UNIVERSITY ISLAMABAD LAHORE CAMPUS**

**Task No. 1**

Muhammad Awais

FA24-BBA-132 (C)

**Q.1: Decomposition (Trip Planning into Smaller Tasks)**

**Breakdown of trip to Murree:**

1. Choose exact dates & total stay duration
2. Finalize mode of transport (own car, rented car, bus, tickets, fuel)
3. Confirm accommodation (hotel/guesthouse/booking)
4. Shortlist activities (Mall Road walk, Patriata chairlift, local food spots, sightseeing)
5. Prepare essentials (clothes, medicines, CNIC, cash, charger, etc.)
6. Make a budget estimate (travel + stay + meals + shopping + extra)

**Flowchart:**

Start → Choose Dates → Finalize Transport → Confirm Stay → Plan Activities → Prepare Essentials → Budget Estimate → End

**Q.2: Pattern Recognition (From Past Trips)**

**Common patterns observed in earlier trips:**

* Budget calculation was always necessary
* Transport & stay were top priorities
* Essentials packing repeated each time
* Food tasting & visiting famous spots were constant
* Time management (leaving early, avoiding rush hours) proved useful

**Flowchart:**

Start → Recall Old Trips → Note Common Steps (Budget, Transport, Packing, Food, Timing) → Apply to New Trip → End

**Q.3: Abstraction (Essential Elements of Trip Planning)**

**Focus only on major requirements, skip minor details:**

* When? (dates & duration)
* How to reach? (car/bus/train)
* Where to stay? (hotel, guesthouse)
* What to do? (sightseeing, shopping, exploring)
* Budget limit? (spending range)
* Must-haves? (clothes, medicines, cash, ID)

**Flowchart:**

Start → Select Date/Duration → Decide Transport → Book Accommodation → Pick Main Activities → Set Budget → End

**Q.4: Algorithm Design (Step-by-Step Trip Plan)**

1. Finalize the travel dates
2. Arrange transport (reserve bus/car)
3. Book accommodation (hotel/guesthouse)
4. Create activity list (Mall Road, Kashmir Point, Patriata, food spots)
5. Pack required items (clothes, medicines, ID, cash)
6. Fix budget for trip (travel, stay, food, shopping, extras)
7. Start trip on time according to plan
8. Enjoy and follow schedule

**Flowchart:**

Start → Finalize Dates → Arrange Transport → Book Stay → Plan Activities → Pack Items → Fix Budget → Start Trip → End



