This study was carried out to determine Effect of some different levels of Egyptian honey bee and royal jelly on blood glucose level of diabetic experimental rats on sixty six male albino rats of (spargue dawley strain) weighting an average of (110±10 g). The rats were divided into two main groups. The first main group (6 rats) was fed on basal diet as a (control negative group). The second main group (60 rats) was injected subcutaneous with recrystallized alloxane (150mg/kg body weight), then divided into four subgroups as follows: The first subgroup (6 rats) was fed on basal diet as a (control positive group), the second subgroup (18 rats) was randomly divided into three groups (6 rats each) Fed on basal diet containing (2.5%, 5% and 7.5%) honey bee from EL-fayoum. The third subgroup (18 rats) was randomly divided into three groups (6 rats) Fed on basal diet containing (2.5%, 5% and 7.5%) honey bee from Upper Egypt (Bany swief). The fourth subgroup: (18 rats) was randomly divided into three groups (6 rats each). Fed on basal diet containing (0.025%, 0.05% and 0.075%) royal jelly. The results revealed that honey bee only from EL-fayoum or Upper Egypt (Bany swief), especially at medium and high concentration improved the blood glucose level, total cholesterol, triglycerides, high density lipoprotein cholesterol, very low density lipoprotein cholesterol, low density lipoprotein cholesterol, urea nitrogen, uric acid, AST, ALT, food intake, body weight gain, and the weights of kidney, heart and liver compared to the positive control group (fed on casein diet).