

1. **Although** C was not originally designed with portability as a prime goal, it succeeded in expressing programs, even including operating systems, on machines **ranging** from the smallest personal computers through the mightiest supercomputers. (20p)
2. Despite some aspects mysterious to the beginner and occasionally even to the **adept (expert)**, C remains a simple and small language, translatable with simple and small **compilers**. (20p)
3. "BCPL, B, and C all fit firmly in the traditional procedural family typified by Fortran and Algol 60. BCPL, B and C differ syntactically in many details, but broadly they are similar. Programs consist of a sequence of global declarations and function (procedure) declarations. Procedures can be nested in BCPL, but may not refer to non-static objects defined in containing procedures. B and C avoid this restriction by imposing a more severe one: no nested procedures at all. Each of the languages provides a means for including text from named files."

According to the passage given above, write down the name(s) of the language(s) which feature each of the properties given in the following table. (20p)

Feature	Language(s)
Procedural language	<b>BCPL, B, C, Fortran, Algol60</b>
Usage of header files	<b>BCPL, B, C</b>
Disjoint procedures	<b>B, C</b>

4. "(I) Functions may return values of basic types, structures, unions or pointers. (II) Any function may be called recursively. (III) Local variables are typically automatic, or created anew with each invocation. (IV) Function definitions may not be nested but variables may be declared in a block-structured fashion. (V) Expressions are formed from operators and operands; any expression, including an assignment or a function call, may be a statement. (VI) The functions of a C program may exist in separate source files that are compiled separately. (VII) Variables may be internal to a function, external but known only within a single source file or visible to the entire program."

Write down the number of the sentence which talks about a different aspect of C than the remaining sentences. (20p)

**V**

5. "Tüm bloklar dışında tanımlanan değişkenlere global değişken adı verilir ve kaynak kodun tamamından erişilebilirler."

Translate the sentence given in Turkish above into English. (20p)

**The variables defined outside all the blocks are called global, and are accessible from the entire source code.**