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INSTITUTE OF COMPUTER APPLICATIONS & MANAGEMENT (BVICAM)
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Course Code: MCA-103

Course Name: Programming in C

Class Test 2

Time: 1 Hour

Max Marks: 20

1. Explain the struct stat and how it can be used to obtain file information? (8 mark)
2. What is meant by opening a data file? How is this accomplished? (2 mark)
3. Write a symbolic constant or a macro definition for each of the following situations. Do not include arguments unless the problem asks you to do so. (5 mark)
 - (a) Define the symbolic constant PI to represent the value 3.141 5927.
 - (b) Define a macro called AREA, which will calculate the area of a circle in terms of its radius. Use the constant PI, defined in part (a), in the calculation.
 - (c) Rewrite the macro described in the preceding problem so that the radius is expressed as an argument.
 - (d) Define a macro called CIRCUMFERENCE, which will calculate the circumference of a circle in terms of its radius. Use the constant PI, defined in part (a), in the calculation.
 - (e) Rewrite the macro described in the preceding problem so that the radius is expressed as an argument.
4. Explain the purpose of each of the following groups of preprocessor directives. (3 mark)
 - (a)

```
#if !defined(FLAG)
#define FLAG 1
#endif
```
 - (b)

```
#if defined(PASCAL)
#define BEGIN { #define END }
#endif
```

```
(c) #ifndef CELSIUS
#define temperature(t) 0.5555555 * (t- 32)
#else
#define temperature(t) 1.8 * t + 32
#endif
```

5. Demonstrate through an example how a new thread can be created from the main thread? (2 mark)