JANUARY 2019

## CLASS XII

Marking Scheme - SUBJECT [THEORY]

| Q.NO. | Answers | Marks |
| :---: | :---: | :---: |
| 1a | iostream.h, ctype.h $1 / 2 \mathrm{~m}$ each for the correct answer | 1 |
| b | 2 mark for any two valid differences. | 2 |
| c | ```Rewrite the following C++ code after removing any/all Syntactical Error(s) with each correction underlined. #include< iostream.h> class game { int gameid; char gcode; game(int x) }\quad->\mathrm{ must be in public section {cout<<"constructor"; x=gameid; } public: void begin() {cin>>gameid; gets(gcode); }->\mathrm{ cin>>gcode; } void game::show() }->\mathrm{ void show() {cout<<gameid<<":"<<gcode;}}; void main() { game obj; obj.begin(); game.show(); }\quad->\mathrm{ obj.show() } 1/2 m each error finding & correcting``` | 2 |
| d | $\begin{aligned} & \hline 9: 24: 74 \\ & 10: 34: 84 \end{aligned}$ <br> $11 / 2 \mathrm{~m}$ each line of correct answer | 3 |
| e | Option (ii) <br> Value for score $\rightarrow$ Maximum : $34 \&$ minimum : 30 <br> 1 m for correct output and 1 m for maximum \& minimum value | 2 |
| f | 1Needle\&Thread 9e\&Thread | 2 |


|  | 6ead 1 m for first line and $1 / 2 \mathrm{~m}$ each for $2 \& 3$ line/ |  |
| :---: | :---: | :---: |
| 2 a | 1 M for correct explanation and 1 m for example | 2 |
| b | (i) a) Annual obj(45); <br> b) Destructor <br> (ii) Annual ( Annual \& A ) $\{\mathrm{m}=\mathrm{A} . \mathrm{m} ;\}$ <br> 1 m each for (i) \& (ii) <br> OR <br> 1 M for correct explanation and 1 m for example | 2 |
| c | ( $1 / 2$ Mark for declaring class header correctly) <br> ( $1 / 2$ Mark for declaring data members correctly) <br> (1 Mark for defining Accept() correctly and $1 / 2$ Mark for taking inputs \& evoking Calprice() ) <br> ( $1 / 2$ Mark for constructor) <br> ( $1 / 2$ Mark for defining ShowBill() correctly) <br> ( $1 / 2$ Mark for correctly closing class declaration with a semicolon ; ) | 4 |
| d | 1 m each for answer correct answer for (i) to (iv) <br> OR <br> (1 Mark for correct syntax for derived class header) ( $1 / 2$ Mark for writing visibility mode ) <br> ( $1 / 2$ Mark for correct declaration of data members ) <br> (1 Mark for defining the function Enter( ) ) <br> (1 Mark for defining the function Display( ) ) | 4 |
| 3 a | ( $1 / 2$ Mark for correct loops) <br> ( 1 Mark for logic) <br> ( $1 / 2$ Mark for output ) | 2 |
| b | (1 Mark for correct loop) <br> (2 Marks for correct logic) | 3 |
| c | (1 Mark for writing correct formula and substituting formula with correct values) <br> (1 Mark for correct step calculations) <br> (1 Mark for final correct address) | 3 |
| d | (1 Mark for checking if Queue is Empty) <br> (1 Mark for checking Declaring) <br> (2 Mark for deleting/inserting the value in the Queue) | 4 |
| e | True False ! \& \& False True \&\& \|| <br> OR <br> False <br> 1 m for correct answer \& 1 m for showing the status | 2 |
| 4 a | ( $1 / 2$ Mark for opening file correctly) <br> ( $1 / 2$ Mark for reading from the file) <br> ( $1 / 2$ Mark for check for words of length more than 7 letters ) <br> ( $1 / 2$ Mark for displaying the word) <br> OR <br> ( $1 / 2$ Mark for opening file correctly) | 2 |


|  | ( $1 / 2$ Mark for reading from the file) <br> ( $1 / 2$ Mark for checking for the letter e or E and counting it) <br> ( $1 / 2$ Mark for displaying the count) |  |
| :---: | :---: | :---: |
| b | (1 Mark for opening correctly) <br> (1 Mark for checking) <br> (1 Mark for display) | 3 |
| c | 1 M for the correct answer | 1 |
| 5 a | 1 m for correct definition and 1 m for example | 2 |
| b | 1 m each for correct query for (i) to (iv) $1 / 2 \mathrm{~m}$ each for correct output (v) to (viii) | 6 |
| 6 a | 2 m for verifying using truth table | 2 |
| b | 2 m for correct logic diagram | 2 |
| c | $(\mathrm{A}+\mathrm{B}+\mathrm{C}) \cdot\left(\mathrm{A}+\mathrm{B}+\mathrm{C}^{\prime}\right) \cdot\left(\mathrm{A}+\mathrm{B}^{\prime}+\mathrm{C}^{\prime}\right) \cdot\left(\mathrm{A}^{\prime}+\mathrm{B}+\mathrm{C}\right) \cdot\left(\mathrm{A}^{\prime}+\mathrm{B}^{\prime}+\mathrm{C}^{\prime}\right)$ <br> 1 M for the correct answer | 1 |
| d | ( $1 / 2$ Mark for drawing K-Map and correctly plotting 1 s in the given cells) <br> ( 2 Mark each for groupings) <br> ( $1 / 2$ Mark for writing final expression in reduced/minimal form) | 3 |
| 7 a | PAN 1 m for correct answer | 1 |
| b | Any 2 characteristics $1 / 2 \mathrm{~m}$ each | 1 |
| c | i. PPP Point to point protocol <br> ii GSM Global System for Mobile communications <br> iii XML Extensible markup language <br> iv HTTP Hyper Text Transfer protocol <br> $1 / 2 \mathrm{~m}$ each for the correct answer | 2 |
| d | 1 mark for definition \& 1 m for correct protocol | 2 |
| e | 1 m each for the correct answer for parts (i) to (iv) | 4 |

