

Uva Wellassa University of Sri Lanka
Faculty of Science and Technology
Department of Computer Science and Technology
100 level 2nd Semester Examination - Dec.-2017/ Jan.-2018
CST123-2 Web Application Development - I

Instructions to candidates

Part C

Number of questions: Two (02)

Time allocation: Two (02) hours

Mark allocation: 50

Download 'Resource' folder from the CMS

Upload the zipped folder named with your Registration Number (i.e. UWU_CST_16_00XX) to the CMS

You are not allowed to use any external memory devices during the examination

Answer all questions.

1.

- a. Use responsive grid view to develop the web page given in Figure 2 by considering the grid view in Figure 1 (See the images exam1.jpg and exam2.jpg in the 'Resource' folder). (20 mark)

Description:

- Header section contains a heading and an image.
- Navigation section has a list of links for other webpages.
- Content section contains an image, headings and text contents.
- Article section has headings, list of latest articles and a form to calculate Body Mass Index (BMI).
- Footer section contains address details and a copyrights statement.

Style Description (see Attachment 01):

- Background color of the header section, footer section and navigation links are #0039e6 and font color is #FFFFFF.
- Font family of paragraphs is Verdana and justifies the paragraph.
- Font size of the navigation links is 20px and font weight is bold.
- The underlines of all navigation links are appeared **only** when the mouse pointer on the links.
- The background color of navigation links are appeared as #696969 when the mouse pointer on the links.
- Font color of the list in the article section is #000080 and it has square bullets style.
- Background color of buttons is #FF8C00 and buttons have round corners with 10px radius.
- Font styles of buttons are 18px, bold and color #FFFFFF.
- Font styles of form labels are 14px and bold fonts.
- Padding and margin properties has to be added appropriately.

- b. Add media queries to improve the responsiveness of the web page for the devices less than 730px. (10 mark)

Header (12 columns)		
Navigations (2 columns)	Content (7 columns)	Articles (3 columns)
Footer (12 columns)		

Figure 1: Grid view of the web page

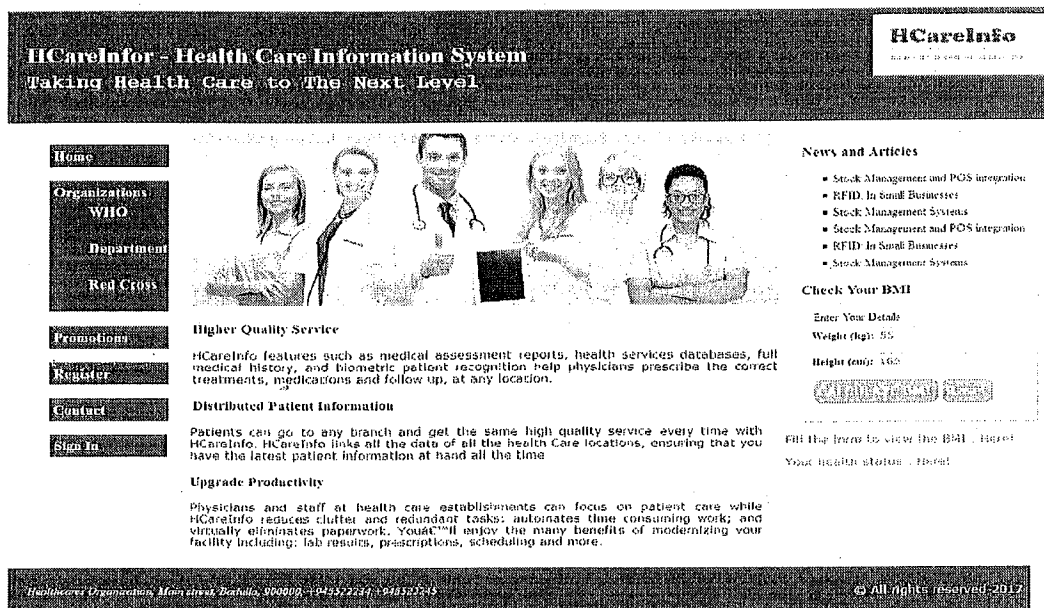


Figure 2: Home page of the HCareInfo Web Page

2. Execute the following JavaScript functions when the button 'CALCULATE BMI' in Figure 2 is clicked (see the images exam3.jpg, exam4.jpg and exam5.jpg in the 'Resource' folder).
- validateForm();** for checking the input text fields are empty or not and displaying a message when the field/s is/are empty (see the image exam5.jpg). (10 mark)
 - calculateBMI(weight, height);** for calculating BMI if the input text fields are not empty. Then view the BMI result at the end of the form (see image exam4.jpg). (10 mark)
- Note: $BMI = \text{weight}/\text{height}^2$; where weight is in kilograms and height is in meters.

