Program: Computer Engineering

Curriculum Scheme: R2016

Examination: BE Semester VIII

Course Code: CSC801 and Course Name: Human Machine Interaction (HMI)

Time: 2 hour   Max. Marks: 80

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Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	We are able to differentiate between a battle axe and woodcutter's axe because of their
Option A:	Affordances
Option B:	Signifiers
Option C:	Decoration
Option D:	Place of display
2.	Natural mapping is relationship between
Option A:	Mental model and design model
Option B:	Cognitive skills and consequences
Option C:	User and machine
Option D:	Nature and culture
3.	Affordances works on
Option A:	Visceral level
Option B:	Behaviour level
Option C:	Reflectional level
Option D:	All of these
4.	Design is a process in which there is/are
Option A:	Meaningful activities are systematically framed
Option B:	Analysis framework and review
Option C:	Prototype, storyboard and review
Option D:	User perspective system generation
5.	ACD stands for
Option A:	Accumulated connection device
Option B:	Alternate computational development

Option C:	Activity centric design
Option D:	Advanced computer display
6.	Overall consideration of visually pleasing composition is:
Option A:	Implementation model

Option B:	Mental model
Option C:	Prototype
Option D:	Design phase
7.	Interaction based on windows, icons, menus and pointers is called the
Option A:	WICP
Option B:	WIMP
Option C:	WIMD
Option D:	Verification
8.	Which is not a feature of GUI that makes learning a program easy for users?
Option A:	Online help
Option B:	WYSIWYG formatting
Option C:	Dialog boxes
Option D:	Detailed key strokes and commands
9.	"Enhances a sense of control" will match with the following UI design principle
Option A:	Compatibility
Option B:	Configurability
Option C:	Consistency
Option D:	Control
10.	Which of the following is not a characteristic of direct manipulation interfaces?
Option A:	Visibility of the objects and actions of interest.
Option B:	Menu selection and form fill-in
Option C:	Rapid, reversible, incremental actions.
Option D:	Replacement of typed commands by a pointing action on the object of interest.
11.	Drawbacks of direct manipulation include all of the following except
Option A:	Designs may consume valuable screen space.
Option B:	Users must learn the meanings of visual representations.
Option C:	Visual representation may be misleading

Option D:	The gulf of execution is increased
12.	The advantages of WYSIWYG word processors include all of the following except
Option A:	Users see a partial page of text
Option B:	The document is seen as it will appear when printed.
Option C:	Cursor action is visible and cursor motion is natural.
Option D:	Immediate display of the results of an action
13.	Allowing surgeons to look at a patient while they see an overlay of an x-ray is an example of
Option A:	Virtual reality
Option B:	Visual Display
Option C:	Augmented reality
Option D:	Force Feedback
14.	Menus with simple yes/no, true/false, or male/female choices are called
Option A:	Binary
Option B:	Tertiary
Option C:	Secondary
Option D:	Simple
15.	An alphaslider allows users to
Option A:	View menu items in context.
Option B:	Select one item from large number of categorical item
Option C:	Customize menu views and operations
Option D:	Reduce the number of required cursor movements
16.	The type of menu that displays all of the menu items on the screen at once but shows only items near the cursor at full size is called a _____ menu.
Option A:	Fisheye
Option B:	Spatial
Option C:	Combo
Option D:	Two-dimensional

17.	A touchscreen is an example of a _____ device.
Option A:	Direct Control
Option B:	User Control
Option C:	Indirect Control
Option D:	Non-Control
18.	Which of the following is not gestalt's principle
Option A:	Similarity
Option B:	Proximity
Option C:	Closure
Option D:	User interface
19.	To make an interface easy and pleasant to use, then, the goal in design is to
Option A:	Increase intellectual work
Option B:	Eliminate any burdens or instructions imposed by technology
Option C:	Increase memory work
Option D:	Increase motor work
20.	What is a plan of presentation to guide the eye through the screen in logical, reasoning order
Option A:	Symmetry
Option B:	Predictability
Option C:	Sequentiality
Option D:	Regularity

Q2 20 Marks	Solve any four Questions out of six 5 marks each
A	Explain Norman's fundamental principles of interaction
B	What are various experience level of users? How can we attain intermediate level of user experience?
C	Distinguish between GUI and web page design
D	Explain statistical graph in detail
E	Write a short note on mobile 2.0
F	Write short note on types of Windows

Q3. 20 Marks	Solve any Two Questions out of Three 10 marks each
A	Provide suitable analysis and Interface design for state road transportation system

B	Explain in detail the principles of UI design. Give an example for incorporating innovative technologies.	
C	Explain in detail about gestalt's principles. Give example	