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- Answer **all** the questions.
- Write your **Index Number** in the space provided in the answer sheet.
- Instructions are also given on the back of the answer sheet. Follow those carefully.
- In each of the questions **1** to **40**, pick one of the alternatives from (1), (2), (3), (4), which is **correct** or **most appropriate** and mark your response on the answer sheet with a cross (X) in accordance with the instructions given on the back of the answer sheet.
- Use of calculators is **not allowed**.

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5. Which protocol is responsible for sending emails between servers?
 1. IMAP
 2. SMTP
 3. FTP
 4. HTTP

6. While researching, a student clicks on a blue underlined text on a webpage that leads to another site. What did they use?
 1. Home page
 2. Hyperlink
 3. Domain
 4. Search engine

7. A web developer uploads website files to a hosting server. Which protocol is most suitable?
 1. SMTP
 2. HTTP
 3. FTP
 4. DNS

8. An IT technician fixes a software issue from a different city using TeamViewer. What is this method called?
 1. File Sharing
 2. Streaming
 3. Remote Access
 4. Web Conferencing

9. A school uploads exam results to a shared server for students to check. What is this an example of?
 1. Cloud Computing
 2. Remote Access
 3. File Sharing
 4. Emailing

10. A student watches a documentary on YouTube without downloading the video. What technology is being used?
 1. Downloading
 2. Streaming
 3. Remote Access
 4. Web Crawling

11. To find weather updates, a student types 'Colombo weather today' into Google. What tool is being used?
 1. DNS
 2. Search Engine
 3. URL
 4. Cloud Service

12. In an email, what does BCC stand for?
 1. Binary Coded Copy
 2. Blind Carbon Copy



3. Back Carbon Copy
 4. Browser Carbon Code
13. Your class uses Zoom to conduct online sessions with video and audio. What is this an example of?
1. Instant Messaging
 2. Cloud Storage
 3. Streaming
 4. Video Conferencing
14. A student updates their status and uploads photos on Facebook. What kind of platform is Facebook?
1. Email Service
 2. Social Network
 3. Search Engine
 4. Cloud Platform
15. Your teacher stores lesson notes on Google Drive. What cloud model does this represent?
1. IaaS
 2. PaaS
 3. SaaS
 4. HaaS
16. A school wants to move from a manual attendance system to an automated one using barcode scanning. What phase of the SDLC is this transition most aligned with?
1. Maintenance
 2. Requirement Gathering
 3. Deployment
 4. Testing
17. In a library system, the librarian is asked to test whether the overdue fine calculation module works independently. Which testing type is this?
1. Unit Testing
 2. System Testing
 3. Integration Testing
 4. Acceptance Testing
18. A developer builds a simplified model of a hospital management system and shows it to the staff for feedback before proceeding. What method is being used?
1. Observation
 2. Prototyping
 3. Interview
 4. Pilot Deployment
19. Which SDLC model is best suited for a project where requirements are fixed and unlikely to change?
1. Prototyping Model
 2. Spiral Model
 3. Waterfall Model
 4. Iterative Model



20. A student management system is tested in one school before launching it in all schools. What deployment method is this?
1. Phased Deployment
 2. Pilot Deployment
 3. Parallel Deployment
 4. Direct Deployment
21. Which of the following is a characteristic of a system?
1. Independent parts
 2. No interaction with environment
 3. Goal-Oriented
 4. Random grouping
22. Which fact-finding method is best to understand the librarian's opinion on current system challenges?
1. Document Sample Collection
 2. Observation
 3. Interview
 4. Questionnaire
23. In a computer-based library system, what feature allows users to locate books easily?
1. RFID Integration
 2. E-Book Integration
 3. Online Reservation
 4. Efficient Book Search
24. Which feasibility study checks whether the system matches the organization's resources and objectives?
1. Legal Feasibility
 2. Technical Feasibility
 3. Operational Feasibility
 4. Economic Feasibility
25. A company chooses to switch completely to a new payroll system and stop using the old one on the same day. What method of deployment is this?
1. Pilot Deployment
 2. Direct Deployment
 3. Parallel Deployment
 4. Phased Deployment
26. What type of information system relies entirely on human effort without the use of computers?
1. CBIS
 2. Real-time System
 3. Manual Information System
 4. Decision Support System
27. A system analyst studies a large volume of overdue reports to identify error trends in a library. Which method is being used?
1. Questionnaire
 2. Interview



3. Document Sample Collection
 4. Observation
28. Which of the following is an advantage of a computer-based information system?
1. Higher initial setup cost
 2. High paper usage
 3. Improved data accuracy
 4. Manual data entry
29. Which SDLC model is most suitable for large systems where risk needs to be assessed in each phase?
1. Waterfall Model
 2. Prototyping Model
 3. Iterative Model
 4. Spiral Model
30. What is the correct order of the SDLC steps?
1. Deployment → Coding → Design → Maintenance
 2. Requirement Gathering → Design → Coding → Testing → Deployment → Maintenance
 3. Design → Coding → Requirement Gathering → Maintenance
 4. Testing → Coding → Requirement Gathering → Deployment
31. A graphic designer notices that when enlarging a low-resolution image, it becomes blurry and pixelated. What is most likely the reason?
1. Incorrect file format
 2. Lossless compression
 3. Low number of pixels
 4. High RGB triplet value
32. A teacher wants to display images on a projector screen. Which color model should be used to achieve vibrant on-screen colors?
1. CMYK
 2. Grayscale
 3. RGB
 4. Binary
33. A student is creating a logo that needs to be resized for posters and websites without losing quality. What type of graphic should they use?
1. Raster
 2. Bitmap
 3. Vector
 4. Pixmap
34. Which of the following image formats uses lossy compression?
1. GIF
 2. PNG
 3. TIFF
 4. JPEG



35. Which tool in GIMP is used to change the border around shapes in a graphic?
1. Ink Bottle Tool
 2. Brush Tool
 3. Pencil Tool
 4. Eraser Tool
36. A student uses Vectorian Giotto to animate a bouncing ball. Which frame types define the start and end of the bounce?
1. Tween Frames
 2. Blank Key Frames
 3. Additional Frames
 4. Key Frames
37. In an audio editing project, which Audacity tool allows the user to make a track fade out gradually?
1. Envelope Tool
 2. Zoom Tool
 3. Timeshift Tool
 4. Draw Tool
38. Which feature of Vectorian Giotto enables users to control when an object appears or disappears in an animation?
1. Timeline
 2. Brush Tool
 3. Layers
 4. Work Stage
39. A media student wants to reduce file size while retaining the original image quality. Which type of compression should they use?
1. Lossy
 2. Lossless
 3. Indexed
 4. RGB
40. Which toolbar in Audacity is used to move audio tracks forward or backward in time?
1. Tools Toolbar
 2. Edit Toolbar
 3. Playback Toolbar
 4. Timeshift Tool



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General Certificate of Education (Adv. Level) Examination, 2024(2025)

Unit Revising Test

* Answer **five (05)** questions only, including the first question and four others
* First question carries **20** marks and each of the other questions carries **10** marks.

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2. (i) **Senuri** is the head librarian of a public library. She manages a manual record-keeping system where member details, book information, borrowing history, and fine details are all written and stored in paper files. As the number of library members and book transactions increased, she found it increasingly difficult to maintain accuracy, retrieve files quickly, and ensure data security. The local council plans to upgrade this into a **Computer-Based Library Management System** using the **System Development Life Cycle (SDLC)**.
- (a) Identify **two major problems** Senuri might face in the existing manual system.
- (b) Explain how a **Computer-Based Information System (CBIS)** can solve the problems mentioned in part (a), using two suitable features or benefits of a CBIS.
- (c) Name and explain **two methods** that the system analyst can use to gather requirements for the new computerized system.
Provide **one real-world example** for each method in the context of Senuri's library.
- (d) The developers want to present a basic version of the system to the library staff and collect feedback before continuing development.
- (ii) Name the **SDLC model** best suited for this purpose.
- (iii) Briefly explain **why this model is appropriate** in this case.
- (e) Once the system is developed, it must be tested. Name and explain **two types of testing** that should be performed.
Use examples relevant to the library context.
- (f) The council decides to implement the new system **only for the reference section** first, to see how it performs before expanding it to the entire library.
- (i) What is the **deployment method** being used here?
(ii) Mention **one advantage** of this method.
3. (i) **Navin** is a student working on a school project that involves creating a multimedia presentation to promote eco-friendly practices. He plans to include **digital graphics, two-dimensional animations**, and **narrated audio content** in his project. He decides to use **GIMP** to edit images, **Vectorian Giotto** for animations, and **Audacity** to record and edit voiceovers.
- (a) Navin wants to insert a high-quality image into his project, but it looks **blurry** when enlarged.
- (i) Identify the **graphic type** he is likely using.
(ii) Explain **why** the image becomes blurry when enlarged.
- (b) Navin decides to use **vector graphics** instead of raster graphics for some parts of his presentation.
- (i) Give **two advantages** of using vector graphics for his school presentation.
(ii) Mention **one file format** suitable for saving a vector image.
- (c) While working on animation using **Vectorian Giotto**, Navin adds a key frame at the start and another at the end of a character's movement.
- (i) What is the purpose of the **tween frames** generated between these key frames?
(ii) Name **two other types of frames** used in 2D animation and briefly state their purpose.

(d) To make his presentation more engaging, Navin records his own narration using **Audacity**.

(i) Identify any **two functions** Audacity provides that help him enhance the narration.

(ii) Explain the purpose of the **Playback Control Toolbar** in Audacity.

(e) Navin notices that his project file has become too large due to high-resolution graphics.

(i) Explain the difference between **lossy** and **lossless compression**.

(ii) Suggest which type of compression Navin should use if he wants to reduce file size but **retain original image quality**.