

**Deptt. of Governance Reforms,  
Punjab State  
e-Governance Society  
Post: Deputy Manager Technical  
(27-10-2024) (Afternoon)  
Question Booklet & Answer Key**

1. Which of the following features are available in word processing software such as MS-WORD?  
 I. Spell checker and Thesaurus II. Page Orientation  
 III. Mail Merge IV. Slide Transitions

**Choose the correct answer from the options given below:**

- A) I, II and IV only B) I and III only  
 C) II and III only D) I, II and III only

2. Consider the following MS-EXCEL worksheet:

	A	B	C
1	Month	Number of Classes taught	Payments (in ₹) made @ 1500 per class
2	January	20	30000
3	February	14	21000
4	March	17	25500
5	April	13	19500
6	May	12	18000
7	June	15	22500

The value returned by the function =SUMIFS(C2:C7, B2:B7, ">13", C2:C7, ">22500") is:

- A) 78000 B) 76500 C) 99000 D) 55500

3. A teacher creates a MS-POWERPOINT presentation to advertise the Annual Sports Day. Which of the following show features that allow navigation around a presentation?

- I. Master Page II. Hyperlinks III. Animations IV. Hotspots

V. Slide numbers

Choose the correct answer from the options given below:

- A) I and II only B) III and IV only  
 C) I and III only D) II and IV only

4. Which of the following statement(s) is/are true with regard to word processing software?

P: The page orientation decides whether the page will be printed lengthwise (portrait) or across its breadth (landscape).

Q: Portrait is wider than it is tall; Landscape is taller than it is wide.

**Choose the correct answer from the following:**

- A) P only B) Q only C) Both P and Q D) Neither P nor Q

5. Match List-1 with List-2.

	<b>List-1</b> (Cyber Attacks)		<b>List-2</b> (Description)
(a)	Spyware	(i)	Sending an email to lure users to fake website to obtain their personal details.
(b)	Phishing	(ii)	Downloading of malicious code to redirect users to fake websites to obtain their personal details.
(c)	Ransomware	(iii)	Keylogger used to record key presses and sending them to third party.
(d)	Pharming	(iv)	Holding hostage a user's data, often for a release fee.

- A) (a)-(iii); (b)-(i); (c)-(iv); (d)-(ii) B) (a)-(ii); (b)-(i); (c)-(iv); (d)-(iii)

- C) (a)-(i); (b)-(ii); (c)-(iv); (d)-(iii) D) (a)-(iii); (b)-(iv); (c)-(i); (d)-(ii)

6. A Media Access Control (MAC) address refers to a number which uniquely identifies a device on the Internet and is usually made up of \_\_\_\_\_ bits.

- A) 16 B) 32 C) 48 D) 128

7. Given below are two statements:  
Statement I. ISPs provide the user with access to the Internet (for a fee) whereas web browsers allow the users to view web pages.  
Statement II. Each web page/site found matching the search criteria in a web search engine is known as a 'hit'.  
In the light of the above statements, choose the most appropriate answer from the options given below:  
A) Both Statement I and Statement II are true.  
B) Both Statement I and Statement II are false.  
C) Statement I is true but Statement II is false.  
D) Statement I is false but Statement II is true.
8. Which of the following statements A-E about firewalls in computer networks are true?  
I. Firewalls are only available as hardware devices and only examine traffic entering a network.  
II. Firewalls allow a user to set rules for network traffic.  
III. Firewalls will automatically stop all malicious traffic.  
IV. Firewalls backup all data that is transmitted around a network.  
V. Firewalls can be used to block access to certain websites.  
Choose the correct answer from the options given below:  
A) I, II and IV only    B) II and V only    C) II, IV and V only    D) I and III only
9. Given below are two statements:  
Statement I. The Internet is not regulated in India; therefore, the information may be biased or inaccurate..  
Statement II. The Internet is one of the services offered by World Wide Web (WWW).  
In the light of the above statements, choose the most appropriate answer from the options given below:  
A) Both Statement I and Statement II are true.  
B) Both Statement I and Statement II are false.  
C) Statement I is true but Statement II is false.  
D) Statement I is false but Statement II is true.
10. Given below are two statements:  
Statement (I) : IPv6 address in computer networking is 4 times larger than an IPv4 address.  
Statement (II): The IP address gives the location of a device on the Internet, whereas the MAC address identifies the device connected to the Internet.  
In the light of the above statements, choose the most appropriate answer from the options given below:  
A) Both Statement I and Statement II are true.  
B) Both Statement I and Statement II are false.  
C) Statement I is true but Statement II is false.  
D) Statement I is false but Statement II is true.
11. Given below are two Statements:  
Statement I: In an email, Bcc: allow recipients to be visible to all other recipients of the message.  
Statement II: VoIP is the use of Internet to make phone calls.  
In the light of the above statement, choose the correct answer from the options given below:  
A) Both Statement I and Statement II are true.  
B) Both Statement I and Statement II are false.  
C) Statement I is true but Statement II are false.  
D) Statement I is false but Statement II are true.

12. In Object Oriented Programming (C++), base class's \_\_\_\_\_ members can be accessed only on the base-class definition or in derived-class definitions.  
 A) Public                      B) Private                      C) Protected                      D) Static
13. Consider the following 'C' program:
- ```
#include<stdio.h>
void main() {

    int *pi ; char *pc ;
    int a[100] ;
    pi = a ; pc = (char*) &a[0] ;
    pi++ ; pc++ ;
    if ( ( char* ) pi==pc ) printf(“1”) ;
    else if ( (char*) pi > pc ) printf(“2”) ;
    else printf(“3”) ;
}
```
- What would be the output of the above program?  
 A) 1                      B) 2                      C) 3                      D) 123
14. Which can be used to convert a lower case letter *ch* to an upper case letter in C-programming?  
 A) *ch = ch - 'a' + 'A'*                      B) *ch = ch + 'Z' - 'z'*  
 C) *ch = ch - 'A' + 'a'*                      D) *ch = ch + 'z' - 'Z'*
15. Consider the following JAVA program:
- ```
public class First {
    public static int GJU(int x) {
        if(x<100) x = GJU(x + 10);
        return (x-1);
    }
    public static void main(String[] args){
        System.out.print(First.GJU(60));
    }
}
```
- What does this program print?  
 A) 59                      B) 95                      C) 69                      D) 99
16. A \_\_\_\_ is a utility that reorganizes the files and unused space on a computer's hard disk so the operating system can access data more quickly and programs can run faster.  
 A) File compression utility                      B) Disk defragmenter  
 C) Disk scanner                      D) File viewer
17. In the context of OS, Maximizing \_\_\_\_\_and minimizing \_\_\_\_\_can lead to increased \_\_\_\_\_.  
 A) predictability, mean response time, rotational latency  
 B) throughput, mean response time, variance of response times  
 C) throughput, variance of response times, transmission time  
 D) seek time, throughput, mean response time
18. Three important design principles in operating systems are:  
 A) caching, virtualization, and support for concurrency  
 B) abstraction, fairness, and context-switching  
 C) throughput, response time, and support for priority  
 D) policy, mechanism, and super user control

19. Which one of the following uses the correct syntax to include an applet called ButtonText in an HTML page?
- A) <P><APPLET = "ButtonText.java" WIDTH = 300 HEIGHT = 250></P>
  - B) <P><APPLET CODE="ButtonText.java" WIDTH=300 HEIGHT=250></P>
  - C) <P><APPLET CODE="ButtonText.class" WIDTH=300 HEIGHT=250></P>
  - D) <P><APPLET = "ButtonText.class" WIDTH = 300 HEIGHT = 250></P>

20. Consider the following three SQL queries (Assume the data in the 'people' table):
- I. select Name from people where Age > 21*
  - II. select Name from people where Height > 180*
  - III. select Name from people where (Age > 21) or (Height > 180)*

If the SQL queries I and II above, return 10 rows and 7 rows in the result set respectively, then what is one possible number of rows returned by the SQL query III?

- A) 3
  - B) 7
  - C) 10
  - D) 21
21. Five processes A, B, C, D and E arrive in this order at the same time with the following CPU burst and priority values. A smaller value means a higher priority.

	CPU Burst	Priority
A	7	3
B	2	5
C	3	1
D	6	4
E	4	2

If the CPU scheduling policy is Round Robin (time quantum = 2), then the average waiting time will be (Ignore context switching overhead):

- A) 10
  - B) 11
  - C) 12
  - D) 15
22. The Session Layer of the OSI model is
- A) Responsible for establishing process-to-process communications between networked hosts.
  - B) Responsible for delivering messages between networked hosts.
  - C) Responsible for defining the syntax, which two network hosts use to communicate.
  - D) Responsible for communications between adjacent network nodes.
23. In software development, which of the following is FALSE?
- A) A good modularization has low cohesion and high coupling.
  - B) Using an agile development methodology makes it easy to react to requirement changes late in the project.
  - C) Beta testing involves a large number of end-users.
  - D) Requirements need to be elicited from all relevant stakeholder groups, not only from end-users.
24. Project Management ensures that
- A) project's risk is assessed
  - B) project's feasibility is assessed
  - C) system is developed at minimum cost
  - D) Both (A) and (B)
25. One of the most important goals of object oriented design is to have
- A) loose cohesion classes and high coupling between these classes.
  - B) high cohesion classes and high coupling between these classes.
  - C) loose cohesion classes and loose coupling between these classes.
  - D) high cohesion classes and loose coupling between these classes.

26. What three actions show that a team is self-organizing? (Choose three.)
- (i) Stakeholders walking in at the Daily Scrum to check progress and work with the Scrum Master to optimize the functional scope for the Sprint.
  - (ii) The Development Team members are working within the boundaries of their functional description and nicely handing off work from analyst to developer to tester to integration.
  - (iii) The Product Owner doesn't need to be at Sprint Retrospectives.
  - (iv) The Development Team creating their own sprint backlog, reflecting all work that is part of the definition of "Done".
  - (v) The Development Team has all the skills needed to create a releasable Increment.
  - (vi) Development Team members collaboratively selecting their own work during the Sprint.
  - (vii) The Development Team inviting external people to the Sprint Planning to ask them how to turn a Product Backlog item into an Increment via a complete and detailed Sprint Backlog.
  - (viii) The Scrum Master is no longer needed.
- A) v,vi,vii      B) iv,v,vi      C) vi,viii,i      D) i,ii,iii
27. When a project starts with a high priority but it is cancelled because its rank erodes or crashes during its project life cycle, this is an example of what type of project closure?
- A) Normal      B) Premature      C) Failed Project      D) Changed Priority
28. Which of the following would be defined as the ability to lead and manage yourself by establishing a sense for who you are, what you stand for and how you should behave?
- A) Proactive      B) Emotional intelligence  
C) Empathetic      D) Personal integrity
29. Which of the following will correctly calculate the total slack in an activity?
- A) LS – ES      B) LF – EF      C) LS – LF      D) Either LS – ES or LF – EF
30. Which one of the following CANNOT be stated for the project charter?
- A) If the project charter isn't signed off by the external client, the project manager cannot start the planning activities.
  - B) The project charter authorizes the project manager to apply organizational resources to achieve the project's objectives.
  - C) The project charter formally recognizes the existence of the project by presenting the project leader's understanding and conceptualization of the project's objectives.
  - D) When the project charter is approved and formally signed off, it becomes an agreement between the project manager and the project sponsor.
31. Which one of the following is NOT an internal environmental factor that needs to be taken into account while planning and executing a project?
- A) Organizational structure      B) The financial situation of the organization
  - C) IT infrastructure of the organization      D) Competitors of the organization
32. Activities A, B, and C are the immediate predecessors for Y activity. If the earliest finishing time for the three activities are 12, 15, and 10, then what will be the earliest starting time for Y?
- A) 10      B) 15      C) 12      D) Cannot be determined
33. The optimistic, pessimistic and the most likely times of activity are 4, 8 and 6 weeks respectively. What is the variance of the activity according to the  $\beta$ - distribution of PERT?
- A) 4/9      B) 4/6      C) 2/3      D) 8/3

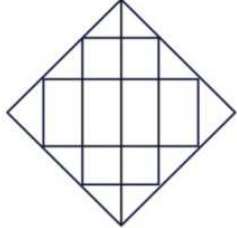
34. \_\_\_\_\_ is when an individual in a project team is behind schedule but report that he or she is on schedule, hoping to get back on schedule by the next report date  
 A) Hope Creep      B) Feature Creep      C) Scope Creep      D) Effort Creep
35. Find the project duration for the following network diagram.
- A) 14 days  
 B) 8 days  
 C) 11 days  
 D) 10 days
- 
- ```

graph LR
  1((1)) -- 4 --> 2((2))
  1((1)) -- 3 --> 3((3))
  1((1)) -- 5 --> 5((5))
  2((2)) -- 4 --> 6((6))
  3((3)) -- 5 --> 4((4))
  4((4)) -.-> 5((5))
  4((4)) -- 6 --> 6((6))
  5((5)) -- 6 --> 6((6))
  
```
36. The Scrum Team has decided to use three-week long Sprints. How long should their Daily Scrum meetings take?  
 A) 5 minutes      B) 11 minutes      C) 15 minutes      D) 20 minutes
37. What is the recommended size of a Development Team?  
 A) 3 to 15      B) 3 to 12      C) 3 to 9      D) 3 to 6
38. When project managers recognize that if they want participants to exceed project expectations then they have to exceed others' expectations of a good project manager, they are leading by example through which of the following aspects?  
 A) Ethics      B) Problem solving      C) Priorities      D) Standards of performance
39. Agile software development estimation methods concentrate on how long it will take to finish each  
 A) use-case      B) scenario      C) increment      D) task
40. When many Scrum Teams are working on a single product, what best describes the Definition of Done? (Choose the best answer.)  
 A) Each Scrum Team defines and uses its own. The differences are discussed and reconciled during a hardening Sprint.  
 B) The Scrum Masters from each Scrum Team define a common Definition of Done.  
 C) Each Scrum Team uses its own, but must make their definition clear to all other teams so the differences are known.  
 D) All Scrum Teams must have a Definition of Done that makes their combined work potentially releasable
41. Mark the correct antonym of the given word out of four options:  
*Implicate*  
 A) Absolve      B) Eclipse      C) Complicate      D) Anticipate
42. Choose the correct preposition:  
 Hari's essay is replete \_\_\_\_\_ demographic statistics.  
 A) Of      B) By      C) With      D) In
43. India's rank in Global Innovation Index 2024 among 133 economies is:  
 A) 36<sup>th</sup>      B) 39<sup>th</sup>      C) 41<sup>st</sup>      D) 47<sup>th</sup>
44. The term BIT is short for :  
 A) Binary Number      B) Binary Language  
 C) Binary Integrated Text      D) Binary Digit

45. Arun starts walking towards North from a point 'S' and after walking 15 m turns to his left and walks 10 m, again he walks 10 m turning to his left and finally walks 22 m turning to his left and reaches a point 'Q'. How far and in which direction is he from the point 'S'?
- A) 57 m North West                      B) 15.6 m North-East  
C) 17 m North                            D) 13 m North-East

46. In a row of 40 boys facing the North, Dheeraj is 6<sup>th</sup> to the right of Raju and Raju is 11<sup>th</sup> to the left of Vijay. If Dheeraj is 28<sup>th</sup> from the right end of the row, what is the position of Vijay from the left end of the row.
- A) 17<sup>th</sup>                      B) 18<sup>th</sup>                      C) 20<sup>th</sup>                      D) 21<sup>st</sup>

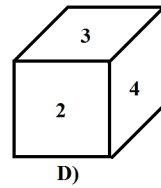
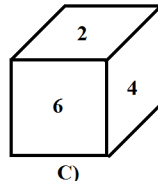
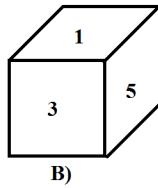
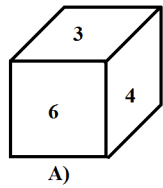
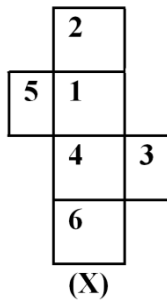
47. How many squares are there in the following figure?



- A) 12                      B) 10                      C) 11                      D) 8

48. Statements :  $L = P \leq W < V \leq K \geq Q$  ;       $B < L$  ;       $K = M$   
Conclusions : I.  $B < V$                             II.  $M > P$
- A) Only conclusion I is true                      B) Only conclusion II is true  
C) Both conclusion I and II is true              D) Neither conclusion I nor II is true

49. Which of the following dices is identical to the unfolded figure as shown in figure (X)?



50. How many times are the hands of a clock is at right angle in 12 hours.
- A) 22                      B) 20                      C) 44                      D) 48



**Deptt. of Governance Reforms, Punjab State e-Governance Society**

**Post: Dy. Manager (Tech) (27 -10-2024) (Afternoon)**

**ANSWER KEY (A-Series)**

| <b>Q.No.</b> | <b>Ans</b> | <b>Q.No.</b> | <b>Ans</b> |
|--------------|------------|--------------|------------|
| 1            | <b>D</b>   | 26           | <b>B</b>   |
| 2            | <b>D</b>   | 27           | <b>D</b>   |
| 3            | <b>D</b>   | 28           | <b>D</b>   |
| 4            | <b>A</b>   | 29           | <b>D</b>   |
| 5            | <b>A</b>   | 30           | <b>A</b>   |
| 6            | <b>C</b>   | 31           | <b>D</b>   |
| 7            | <b>A</b>   | 32           | <b>B</b>   |
| 8            | <b>B</b>   | 33           | <b>A</b>   |
| 9            | <b>C</b>   | 34           | <b>A</b>   |
| 10           | <b>A</b>   | 35           | <b>A</b>   |
| 11           | <b>D</b>   | 36           | <b>C</b>   |
| 12           | <b>C</b>   | 37           | <b>C</b>   |
| 13           | <b>B</b>   | 38           | <b>D</b>   |
| 14           | <b>B</b>   | 39           | <b>B</b>   |
| 15           | <b>B</b>   | 40           | <b>D</b>   |
| 16           | <b>B</b>   | 41           | <b>A</b>   |
| 17           | <b>B</b>   | 42           | <b>C</b>   |
| 18           | <b>A</b>   | 43           | <b>B</b>   |
| 19           | <b>C</b>   | 44           | <b>D</b>   |
| 20           | <b>C</b>   | 45           | <b>D</b>   |
| 21           | <b>B</b>   | 46           | <b>B</b>   |
| 22           | <b>A</b>   | 47           | <b>D</b>   |
| 23           | <b>A</b>   | 48           | <b>C</b>   |
| 24           | <b>C</b>   | 49           | <b>D</b>   |
| 25           | <b>D</b>   | 50           | <b>A</b>   |