



# माध्यमिक शिक्षा मण्डल, मध्यप्रदेश, भोपाल

24 पृष्ठीय

परीक्षार्थी द्वारा भरा जावे ↓

परीक्षा का विषय: **INFORMATICS** विषय कोड: **151** परीक्षा का माध्यम: **ENGLISH**

उत्तर पुस्तिका का सरल क्रमांक: **320-1950214**

अंकों में परीक्षार्थी की रोल नम्बर: **- 2 0 4 6 3 0 8 7 1**

शब्दों में: **Two Zero four six Three zero Eight seven one**

उदाहरणार्थ: 

1	1	2	4	3	9	5	6	8
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केवल परीक्षक द्वारा भरा जावे।

प्रश्न क्रमांक के समुच्चय प्राप्तियों की प्रविष्टि करें। प्रश्न क्रमांक पृष्ठ क्रमांक प्राप्तांक (अंक में)

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क - पूरक उत्तर पुस्तिकाओं की संख्या अक्ष में  शब्दों में

ख - परीक्षार्थी का कक्ष क्रमांक **03**

ग - परीक्षा का दिनांक **09 03 2020**

परीक्षा का नाम एवं परीक्षा केंद्र क्रमांक की मुद्रा

**हायर सेकेंडरी परीक्षा**  
**प्रधान शिक्षा अधिकारी द्वारा** केंद्र क्र. 461040

पर्यवेक्षक का नाम एवं हस्ताक्षर: **मनीष पांचाण**

केन्द्राध्यक्ष/सहायक केन्द्राध्यक्ष के हस्ताक्षर: **केन्द्राध्यक्ष**  
 केंद्र क्रं.-461040

परीक्षक एवं उपमुख्य परीक्षक द्वारा भरा जावे ↓

प्रमाणित किया जाता है कि मूल्यांकन के समय पूरक उत्तर पुस्तिकाओं की संख्या उपरोक्तानुसार सही पाई हो। कंप्यूटर स्टीकर क्षतिग्रस्त नहीं पाया गया तथा अन्दर के पृष्ठों के अनुरूप मुख्य पृष्ठ पर अंकों की प्रविष्टि एवं अंकों का योग सही है।

निर्धारित मुद्रा : नाम, पदनाम, मोबाईल नम्बर, परीक्षक क्रमांक एवं पदांकित संस्था के नाम की मुद्रा लगाए।

उप मुख्य परीक्षक के हस्ताक्षर एवं निर्धारित मुद्रा

**Dr. Vohra**  
**Smt S. Tiwar**  
**Principal**  
**Govt H.S. Sr. Reha**

नोट :- "हायर सेकेंडरी परीक्षा में केवल वाणिज्य संकाय प्रायोगिक विषय को छोड़कर शेष विषयों हेतु नियमित एवं 100 अंकों का होगा किन्तु नियमित छात्रों को 100 अंकों एवं स्वाध्यायी छात्रों को 100 अंकों के प्राप्तांक ही अंकों

परीक्षार्थी द्वारा भरा जावे  
 केन्द्राध्यक्ष/सहायक केन्द्राध्यक्ष एवं पर्यवेक्षक द्वारा भरा जावे  
 परीक्षक एवं उपमुख्य परीक्षक द्वारा भरा जावे



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Q-1 Choose the correct -

(A) Modulator - D modulator

(B) ~~J~~ Button

(C) Variables

(D) Database Management System

(E) National ~~Industrial~~ Center  
Information

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Q-2 Fill in the following blanks -

(i) Band or ~~Hex~~ ✓

(ii) reference ✓

(iii) ~~HTML~~ (Hyper text Mark-up language) ✓

(iv) CREATE DATABASE

(v) environment

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Q-3 Match the following Pairs -

(i) TCP

Protocol

(ii) Java

Programming language

(iii) Hierarchical model

One parent and many children.

(iv) Tuple

A row of table

(v) Front end

User

Q-4 Answer in one sentence -

(i) A network protocol is a set of rules to govern communication, and to identify one computer over another on a network.

(ii) Java Development Kit is full form of JDK.

(iii) We can say collection of field as record or attribute.

(iv) MOD() function helps to find any number of the remainder.

(v) E-commerce



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Ans-5 (OR)

Two advantages of open source software -  
Advantages

1.) Availability

2.) No Discrimination

1.) Availability - open source software is available for all without any restrict license and free of cost.

2.) No Discrimination - It does not discriminate any developer over another.

Ans-6

All Java Components require names, names used for classes and variable is known as Identifier.

Following Points should be remember for Identifier -



Most importantly, identifiers are case sensitive.

- 2) All identifiers should begin with a letter (A to Z, a to z), currency character (\$), or underscore (\_).

Ans - 7 (OR)

Primary Key - Primary key is a unique key in a table constraint which do not accept null values.

Candidate key - Candidate key, is also a primary key, whose value is derived as from primary key of a table and used as primary key.

Ans - 8 (OR)

Inheritance is a part of object oriented programming.

Inheritance creates new classes (sub-classes, derived classes) from the base class (super-class).  
Sub classes is also called



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child class which inherits all properties or behaviours of base class. sub classes can also be divided into various sub classes. means that sub classes have also their sub class.

### Advantages of Inheritance

Modeling of Real world

transitive Nature of Inheritance

1.) Modeling of Real world - Inheritance models the real world, inheritance can also be applied in real-life.

2.) transitive Nature of Inheritance - Inheritance have the transitive nature for classes.

### Types of Inheritance -

- 1.) Multi-level Inheritance
- 2.) Multiple Inheritance
- 3.) Hybrid Inheritance etc.



Ans-9 (OR)

(i) SIGN()

= SIGN() returns the argument  
+ for positive and (-) for negative.

Syntax :

SIGN(number)

Example :

i) SIGN(452)

ii) SIGN(-568)

Result : +

Result : -

(ii) TRUNCATE()

= TRUNCATE() returns the argument  
raised up to the decimal  
places of given number.

Syntax : TRUNCATE ( ) ( number, decimal )

Example : TRUNCATE ( ) ( 455.7826, 2 )

Result : 455.78

(iii) Power()

Power() returns the argument  
raised to the specific power  
(base, exponent) and provide result.



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Syntax :  $POWER(x), POW(x)$  (base, exponent)  
 Example :  $POWER(x)$  (2, 3)  
 Result : 8.

Ans-10 (OR)

(i) E-governance

E-governance is a website that contains all the information regarding government services and process. It improves efficiency. Citizen can get all the information on the website but for it, all information should be updated on website. It is transitive in nature.

Web Portals :

- i) [www.indiagov.in](http://www.indiagov.in)
- ii) [www.indiancourts.nic.in](http://www.indiancourts.nic.in)

(ii) E-learning

E-learning contains all the information for the learner, so one can easily learn from website. Students

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- can easily learn at off hours.
- 1.) It is cost effective
  - 2.) It is Any-time, Any-where learning.

Web Portals :

- i) [www.exelearning.org](http://www.exelearning.org)
- ii) [www.w3school.com](http://www.w3school.com)
- iii) [www.moodle.org](http://www.moodle.org)

### (iii) E-Commerce

E-Commerce contains all the information for the user related to buying, selling the internet. E-commerce is a wide term, it is a subset of e-commerce. E-commerce provides facility to the user or customer 24/7. It is suitable for to buy several products. It provides various facilities.

- 1.) Immediacy - one can get the product easily without waiting in queues.
- 2.) Less Paperwork - Always a good thing!

Web Portals :

- i) [www.amazon.com](http://www.amazon.com)
- ii) [www.snapdeal.com](http://www.snapdeal.com)
- iii) [www.ebay.in](http://www.ebay.in)
- iv) [www.petc.co.in](http://www.petc.co.in)



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Ans-1P

Networks are used to connect one computer to another on the internet for the purpose of sharing resources on the internet. The most common resources that is used today is connection of Internet.

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Types of Network -

- 1.) Local Area Network (LAN) ←
- 2.) Campus Area Network (CAN) ←
- 3.) Home Area Network (HAN) ←
- 4.) Metropolitan Area Network (MAN) ←
- 5.) Personal Area Network (PAN) ←
- 6.) Wide Area Network (WAN) ←
- 7.) Wireless Local Area Network (WLAN) ←

Types

Advantages of Network -

1.) Resource sharing of Information - one can easily share information through the



network on the internet. One can get all the information when it is needed.

2.) Improved Communication - Networks improves communication facilities, one can get information easily without leaving the desk or through e-mail or other sources.

Security - Network provides security to the user, so no problem of theft or privacy while sharing resource on the internet. It is password protected so no illegal work is performed.

4.) Speed - Network have the great speed. It saved our time to get all the information without any delay from anywhere. Hence, network is most beneficial today.



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Ans - 12 (OR)

Font tag in HTML have the color, size or style of text. So, one can make the webpage creative with the help of FONT Tag. HTML to make window creative.

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It contributes the following -

Attributes	Values	Description
FONT COLOR	color	Specifies the color of the text.
FONT SIZE	value (1-7)	Specifies the size of text.
FONT FACE	FACE	Specifies the face of text.



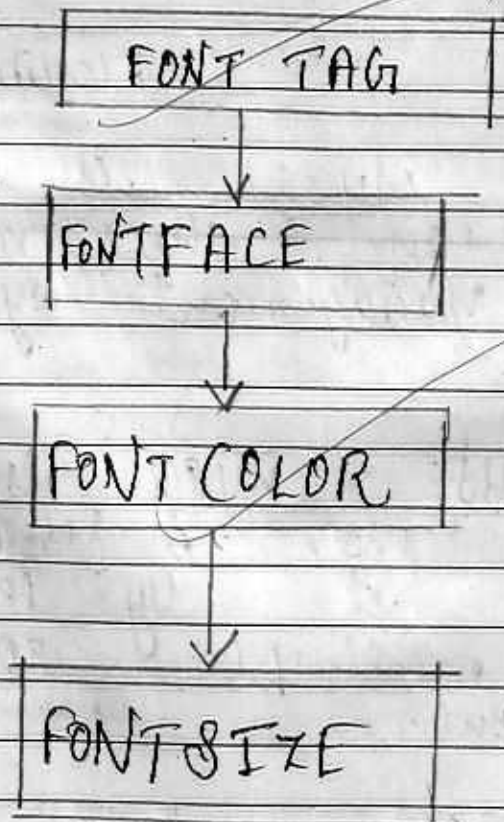
FONT SIZE have the value  
 ranges from (1-7). Default  
 value is 3.

Example :

< FONT FACE = "ARIAL" > I am learning  
 HTML < / FONT >

< FONT SIZE = "3" > web Pages < / FONT >

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Features of MySQL -

MySQL

RDBMS

Easy to use

It is secure

Free to Download

Flexibility

1.) RDBMS - MySQL is based on the relational database management system (RDBMS).

2.) Easy to use - MySQL is easy to use. A user can work on it by learning several, simple SQL statements.

3.) It is secure - MySQL is secure. Information



is password protected so no illegal copying there.

4.) Free to download -

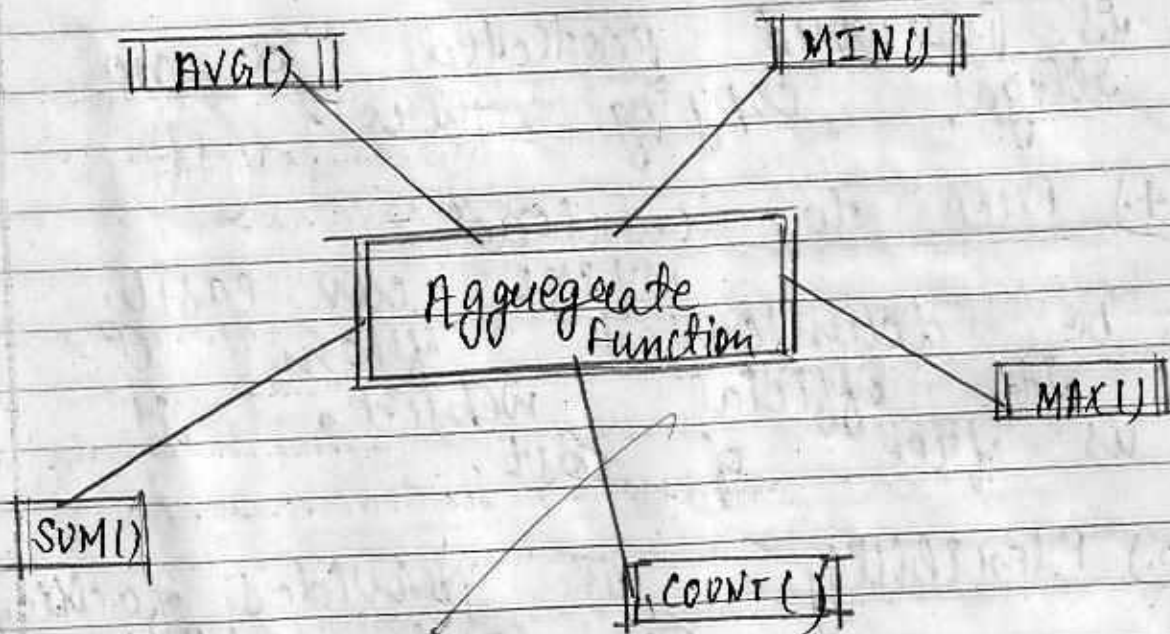
MySQL can easily be downloaded from its official website, it is free of cost.

5.) Flexibility - It provides facility of more users, it is flexible to easily add additional users. It is flexible.

Ans- 14

Aggregate function is also known as group functions, used basically on single row based on group of rows, rather than single rows.

Aggregate function in MySQL have following types based on 0 single row -

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1.) AVG() - Returns the average value of a given number.

2.) SUM() - Returns the sum value of a given number.

3.) MIN() - Returns the minimum value of a given number from total.

4.) MAX() - Returns the maximum value of given number.

5.) COUNT() - Returns the count value of given number.





Ans - 15 (OR)

E-learning provides learner the opportunity to learn from the official website.

E-learning websites -

- 1.) [www.exelearning.org](http://www.exelearning.org)
- 2.) [www.w3schools.com](http://www.w3schools.com)

Advantages of E-learning -

- 1.) It provides the user Any time, Any where learning.
- 2.) Cost effective, enriched the user to save the cost.
- 3.) It enriched several resource on internet and provides the user free long lasting learning.

(i) Benefits to Students

- 1.) user or learner can get the material on internet as per need.



प्रश्न क्र.

2.) It provides the student an environment for a good learning.

3.) It gave them facility to get information through the regular classes or learning session is available.

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4.) Students can log-in and get all information as per need of student.

(ii) Benefit to Teacher -

1.) It facilitates teacher to prepare a single document and not to prepare for individual student.

2.) Teacher can improve their efficiency and teaching through it.

3.) Teacher can prepare the learning sessions, classes for all student.

4.) There is a less fever among them as it is not face-to-face communication.



Ans - 16

Malicious softwares like Trojan Horses, worms, spyware, Adware, sea virus etc. are some of the common threats of security.

There are various security threats and divided into various types -

1.) Common threats -

1.) Snooping

2.) Eavesdropping

(a) Snooping - It is an unauthorized access to get all information on internet through e-mail, data programs etc.

(b) Eavesdropping - It is an act of secretly listening someone data or communication while data is on the way.

Firewall provides security to program to not get an unauthorized access on program.



(ii) Reconnaissance -

It is an act of getting information without user's consent or knowledge, that disturbs normal operation and provides insecurity.

(iii) Denial of service attack -

DOS are those attacks which prevent legal users to perform the work. they are of following types -

1) Denial of attack to Information -

It attacks on the information and change into non-readable format.

2) Denial of attack to system -

It prevents the user to available system of application.

3) Denial of attack to Application -

It made information unavailable through not to install application in system.

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4) Denial of attack to communication -  
 It is the most common threat like jamming of wires, cutting of communication etc.

Ans - It (OR)

(1) lower case string method

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= It lowers the character as it from the given character. It is a method for lowering case.

Example -

String (s) = SACHIN  
 system.out.println("lower the  
 string (s):" + s.toLowerCase());

Output: sachin

It is used for lowering the case of the string through the syntax.



(ii) upper case string method

= It converts the method into the upper case through the following syntax:

Example:

```
String (s) : sachin
System.out.println : converts into
upper case (s) : // SACHIN;
```

Output : SACHIN

It converts the string method through syntax of JAVA.

Ans - 18

Menu driven user Interface is one of the types of GUI Interface (Graphical user interface).

Graphical user Interface has four types -



- 1.) Menu Driven Interface ←
- 2.) Command Line Interface ←
- 3.) Graphical User Interface ←
- 4.) Touch screen Graphical user Interface ←

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Menu driven interface provides the user to do work with from most of lists, combobox, checkboxes, radio button, etc.

### Advantages of Menu driven User Interface -

- 1.) Menus provides number of lists so one can get from variety of choices.
- 2.) It contains various command like lists, Check Boxes etc.



3.) Menu driven Interface is like a drop-down box.

4.) Radio Button is used for the choices like Gender (Male or female) et.

5.) Lists provides lot of options to choose from variety of products such as food products.

Radio Button is like Combo Box except it used for choices you variety of large.

\* Lists Box is same as check Box. But there is number of choices in the lists as compared to check Box.