

UNIVERSITY OF MYSORE

Postgraduate Entrance Examination June/July 2017



SUBJECT CODE : **50**

QUESTION BOOKLET NO.

Entrance Reg. No.

117245

QUESTION BOOKLET

(Read carefully the instructions given in the Question Booklet)

COURSE : **M.Sc.**

SUBJECT : **Information Technology**

MAXIMUM MARKS : 50

MAXIMUM TIME : ONE HOUR

(Including initial 10 minutes for filling O.M.R. Answer sheet)

INSTRUCTIONS TO THE CANDIDATES

1. The sealed questions booklet containing 50 questions enclosed with O.M.R. Answer Sheet is given to you.
2. Verify whether the given question booklet is of the same subject which you have opted for examination.
3. Open the question paper seal carefully and take out the enclosed O.M.R. Answer Sheet outside the question booklet and fill up the general information in the O.M.R. Answer sheet. If you fail to fill up the details in the form of alphabet and signs as instructed, you will be personally responsible for consequences arising during scoring of your Answer Sheet.
4. During the examination:
 - a) Read each question carefully.
 - b) Determine the Most appropriate/correct answer from the four available choices given under each question.
 - c) Completely darken the relevant circle against the Question in the O.M.R. Answer Sheet. For example, in the question paper if "C" is correct answer for Question No.8, then darken against Sl. No.8 of O.M.R. Answer Sheet using Blue/Black Ball Point Pen as follows:

Question No. 8. (A) (B) (C) (D) (Only example) (Use Ball Pen only)

5. Rough work should be done only on the blank space provided in the Question Booklet. Rough work should not be done on the O.M.R. Answer Sheet.
6. If more than one circle is darkened for a given question, such answer is treated as wrong and no mark will be given. See the example in the O.M.R. Sheet.
7. The candidate and the Room Supervisor should sign in the O.M.R. Sheet at the specified place.
8. Candidate should return the original O.M.R. Answer Sheet and the university copy to the Room Supervisor after the examination.
9. Candidate can carry the question booklet and the candidate copy of the O.M.R. Sheet.
10. The calculator, pager and mobile phone are not allowed inside the examination hall.
11. **If a candidate is found committing malpractice, such a candidate shall not be considered for admission to the course and action against such candidate will be taken as per rules.**

INSTRUCTIONS TO FILL UP THE O.M.R. SHEET

1. There is only one most appropriate/correct answer for each question.
2. For each question, only one circle must be darkened with BLUE or BLACK ball point pen only. Do not try to alter it.
3. Circle should be darkened completely so that the alphabet inside it is not visible.
4. Do not make any stray marks on O.M.R. Sheet.

ಗಮನಿಸಿ : ಸೂಚನೆಗಳ ಕನ್ನಡ ಆವೃತ್ತಿಯು ಈ ಪುಸ್ತಕದ ಹಿಂಭಾಗದಲ್ಲಿ ಮುದ್ರಿಸಲ್ಪಟ್ಟಿದೆ.

SEAL

SEAL

1) The addition of the matrices $\begin{bmatrix} 3 & 7 & 2 \\ 1 & 0 & 0 \\ 5 & 3 & 4 \end{bmatrix}$ and $\begin{bmatrix} 2 & 4 \\ 1 & 3 \end{bmatrix}$ gives _____.

- A) 3x3 matrix
- B) 3x2 matrix
- C) 2x3 matrix
- D) None of these

2) The value of the determinant $\begin{vmatrix} d & b \\ c & a \end{vmatrix}$ is _____.

- A) $db - ca$
- B) $da - cb$
- C) $dc + ba$
- D) $db + ca$

3) If A is a matrix of order $m \times n$ and B is a matrix of order $n \times p$ then order of AB is _____.

- A) $p \times m$
- B) $p \times n$
- C) $n \times p$
- D) $m \times p$

4) Maximum number of components of a vector may be _____.

- A) One
- B) Two
- C) Three
- D) Infinite

- 5) Displacement is a _____
- A) Scalar quantity
 - B) Vector quantity
 - C) Base quantity
 - D) Derived quantity
- 6) If $y=e^x+1$ then $\frac{y^2}{2} + \frac{dy}{dx} =$ _____
- A) 1
 - B) -1
 - C) $-\frac{1}{2}$
 - D) $\frac{1}{2}$
- 7) Find the critical point and its nature for the function $f(x,y)=x^2-2x+2y^2+4y-2$.
- A) (1,1), a maximum
 - B) (1,-1), a maximum
 - C) (1,1), a minimum
 - D) (1,-1), a minimum
- 8) Find the minimum distance from the point (4, 2) to the parabola $y^2 = 8x$.
- A) $4\sqrt{3}$
 - B) $2\sqrt{2}$
 - C) $\sqrt{3}$
 - D) $2\sqrt{3}$

- 9) Every natural number is also _____.
- A) Irrational number B) Even integer
C) Negative integer D) Rational number
- 10) Regular grammar is _____
- A) Non context free grammar B) Context free grammar
C) English grammar D) None of the mentioned
- 11) Two concentric circles are of radii 13 cm and 12cm. What is the length of the chord of the larger circle which touches the smaller circle?
- A) 8cm B) 10cm
C) 6cm D) 4cm
- 12) Formula used to measure area of circle is _____
- A) $4 \pi r^2$ B) πr^2
C) $2\pi r^2$ D) $\pi r^2 + 2r$
- 13) The line perpendicular to the tangent line is called _____
- A) normal line B) secant line
C) limit D) derivative
- 14) Which of the following is a prime number?
- A) 31 B) 33
C) 35 D) 39
- 15) In a class there are 20 boys and 15 girls. The ratio of boys to girls is:
- A) 4 : 3 B) 3 : 4
C) 4 : 5 D) None of these

28) Convert decimal 213 to binary.

A) 11001101

B) 11010101

C) 01111001

D) 11100011

29) If the radix point(binary point)is fixed and assumed to be on the right of the right most digit, the representation of such numbers is called_____

A) Fixed point

B) Floating point

C) Radix point

D) None of these

30) MSD stands for _____

A) Most significant digit

B) Many significant digit

C) Both A & B

D) None of these

31) The value of K for which the circles $x^2+y^2-3x+ky-5=0$ and $4x^2+4y^2-12x-y-9=0$ becomes concentric is_____

A) $\frac{1}{8}$

B) $-\frac{1}{8}$

C) $\frac{1}{4}$

D) $-\frac{1}{4}$

32) Which of the following is called low level languages?

A) Machine language

B) Assembly language

C) Both A & B

D) None of above

- 44) Who was _____ the door?
A) at
B) on
C) in
D) of
- 45) AutoCorrect was originally designed to replace _____ words as you type.
A) short, repetitive
B) grammatically incorrect
C) misspelled
D) none of the above
- 46) Internet works on _____
A) packet switching
B) circuit switching
C) both (A) and (B)
D) none of the mentioned
- 47) Bluetooth is an example of _____
A) personal area network
B) local area network
C) Virtual private network
D) none of the mentioned
- 48) A set of rules that governs data communication
A) Protocols
B) Standards
C) RFCs
D) None of the mentioned
- 49) _____ refers to any type of application or presentation that involves more than one type of media, such as text, graphics, video, animation, and sound.
A) An executable file
B) Desktop publishing
C) Multimedia
D) Hypertext
- 50) What does GUI stand for?
A) Gaming User interface
B) Graphical User Interface
C) Geometric User Interface
D) Guidance User Interface



- 38) What is the output of lexical analyzer?
- A) parse tree
B) A list of tokens
C) Intermediate code
D) Machine code
- 39) What is interpreter?
- A) An interpreter does the conversion line by line as the program is run
B) None of the options
C) An interpreter is the representation of the system being designed.
D) An interpreter is a general purpose language providing very efficient execution
- 40) Which is not application software?
- A) Windows NT
B) Page Maker
C) WinWord XP
D) Photoshop
- 41) Which of the following device can be used to directly scan printed text?
- A) OCR
B) OMR
C) MICR
D) All of above
- 42) The autofill feature _____
- A) Extends a sequential series of data
B) Automatically adds a range of cell values
C) Applies a boarder around selected cells
D) None of above
- 43) How are data organized in a spreadsheet?
- A) Lines and spaces
B) Layers and planes
C) Rows and columns
D) Height and width