UNIVERSITY OF MYSORE

Postgraduate Entrance Examination June/July 2017

SUBJECT CODE :

Entrance Reg. No.

QUESTION BOOKLET 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 SI. No.8 of O.M.R. Answer Sheet using Blue/Black Ball Point Pen as follows:

Question No. 8. (A) (B) (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 ಮಸ್ತಕದ ಹಿಂಭಾಗದಲ್ಲಿ ಮುದ್ರಿಸಲ್ಪಟ್ಟಿದೆ.

		13	1	2		52	47		
1)	The addition of the matrices	1	0	0	and 3 g	gives	ves		
		5	3	4		and ad-			

- 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 x n and B is a matrix of order n x p then order of AB is _____
 - A) pxm
 - B) pxn
 - C) nxp
 - D) mxp
- 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√3
 - B) 2√2
 - C) √3
 - D) 2√3

9)	Eve	ry natural number is also		M Displacements sales and the
	A)	Irrational number	B)	Even integer
	C)	Negative integer	· D)	Rational number
10)	Reg	gular grammar is		. Zganare b≠vne∩ (G
	A)	Non context free grammar	B)	Context free grammar
	C)	English grammar	D)	None of the mentioned
11)	Two	o concentric circles are of radii 13 rd of the larger circle which touch	cm an	nd 12cm. What is the length of the smaller circle?
	A)	8cm	B)	10cm
	C)	6cm	D)	4cm
12)	For	mula used to measure area of circ	cle is_) madQ
	A)	$4 \pi r^2$	B)	πr^2
	C)	$2\pi r^2$	D)	$\pi r^2 + 2r$
13)	The	e line perpendicular to the tangen	t line i	s called
	A)	normal line	B)	secant line
	C)	limit	D)	derivative
				have a management (I) (II)
14)	Wh	nich of the following is a prime n	umber?	romanda (1,1). O la
	A)	31	B)	33 CONTINUE (1.1)
	C)	35	D)	39
15)	In :	a class there are 20 boys and 15 g	irls. Th	ne ratio of boys to girls is:
13)	A)	4:3	B)	3:4
	(C)	4:5	D)	None of these
	, ,			

16)				rk in 4 days. If A alone can complete s can B alone complete that work?
	A)	4 days	B)	5 days
	C)	6 days	D)	7 days
17)	CA	LANDER is coded in a code RCULAR under the same rule.		LANAEDR. Find the code for
	A)	LACANDER	B)	CRIUCALR
	C)	CLANADER	D)	None of these
				obe) until beneard (A
18)	Sin	$(90^{\circ} - x)$ equals?		
	A)	Sin x	B)	1 – Sin x
	C)	Cos x	D)	Cosec x
19)	Wh	at comes next in the sequence: 1	, 2, 6, 2	22, <u>- : : :</u> ?solonguluc sveniesi (p.)
	A)	82 are thun bendean U. (et a	B)	84 Profitog Local? (A.
	C)	86	D)	88
20)	Circ	cuit that is said to be universal gat	e is	20) - Whit is a maderne skipper un
	A)	AND (1)	B)	OR
	C)	NAND	D)	XOR
21)	Whi	ch number system has a base of	16?	
	A)	Decimal	B)	Octal
	C)	Hexadecimal	D)	None of these
M O	140			

22)	Hov	many truth table entries are nece	ssary i	or a four-input circuit
20.1	A)	4 cislamos arola literativa and	B)	8
	C)	12	D)	16
23)	The	Boolean expression for a 3-input	OR g	ate is
101		X = A + B		X = A + B + C
		X = ABC	D)	X = A + BC
24)	EB	CDIC stands for		
	A)	Extended Binary Coded Decim	al Inter	rchange Code
	B)	Extended Bit Code Decimal Int	erchan	ge Code
	C)	Extended Bit Case Decimal Into	erchang	ge Code
	D)	Extended Binary Case Decimal	Interc	hange Code
25)	Pos	sitive integers can be represented	as	ings of the state
20)	A)		B)	Unsigned numbers
	C)		D)	Both A and B
26) W	hich numbering system uses numb	ers and	l letters as symbols?
	A)		B)	binary
	C)		D)	hexadecimal
			c	
27		ne decimal number for octal 74 ₈ i		1 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	A)	60	B)	
	C	62	D)	nutroles

28)	Con	nvert decimal 213 to binary.		ons of the historical continues the f
	A)	11001101	B)	11010101
	C)	01111001	D)	11100011
29)		he radix point(binary point)is fixed at most digit, the representation of		assumed to be on the right of the numbers is called
	A)	Fixed point	B)	Floating point
	C)	Radix point	. D)	None of these
20)		· · · · · · · · · · · · · · · · · · ·		en e
30)		D stands for		
	A)	Most significant digit		set in my obor all had done in the
	B)	Many significant digit		
	C)	Both A & B		
	D)	None of these		
31)		value of K for which the circles x ² omes concentric is	² +y ² -3	$x+ky-5=0$ and $4x^2+4y^2-12x-y-9=0$
	A)	$\frac{1}{8}$	B)	$\frac{1}{8}$ med (caragret) (A)
	C)	1/4	D)	-1/4
32)	Whi	ch of the following is called low leve	el lang	guages?
	A)	Machine language	B)	Assembly language
	C)	Both A & B	D)	None of above
	1.40			

44)	Who	wasthe door?		maritime the Marian and
• '		at which has been seen as a second	B)	on
		in the state of th	D)	of
45)	Auto	Correct was originally designed	to re	eplace words as you
,	type.			
		short, repetitive	B)	grammatically incorrect
	C)	misspelled	D)	none of the above
46)		rnet works on	D)	circuit switching
	A)	packet switching	B)	none of the mentioned
	C)	both (A) and (B)	D)	none of the mentioned
47)	Blue	etooth is an example of		line majeralogusing valeti W (8).
	A)	personal area network	B)	local area network
	C)	Virtual private network	D)	none of the mentioned
48)) A se	et of rules that governs data comn		
	A)	Protocols	B)	
	C)	RFCs		None of the mentioned
49	mo	refers to any type of re than one type of media, such and.	applio as tex	cation or presentation that involves xt, graphics, video, animation, and
	A)	An executable file	B)	Desktop publishing
	C)	Multimedia	D) Hypertext
50) Wh	nat does GUI stand for?		santi zamen zaka zaka (S4
	A)	Gaming User interface	Е	3) Graphical User Interface
	C)	Geometric User Interface	Γ	O) Guidance User Interface
		₩ ₩	發發	
N	1-214	8 [1	0]	

30) WI	nat is the output of lexical	analyzer?		
	A)	parse tree	В)	A list of tokens
	C)	Intermediate code	D)	Machine code
39) Wh	at is interpreter?			(Mangari) and the same in the
	A)	An interpreter does the c	onversion li	ne	by line as the program is run
	B)	None of the options			as the program is full
	C)	An interpreter is the repre	esentation of	f t	he system being designed.
	D)				inguage providing very efficien
40)	Whi	ch is not application softw	vare?		Calemans in simple Age.
	A)	Windows NT	B)		Page Maker
	C)	WinWord XP	D)		Photoshop
41)	Whi	ch of the following device	can be used	l to	o directly scan printed text?
		OCR Male Market	B)		OMR
	C)	MICR	D)		All of above
42)	The	autofill feature	os k cays		
	A)	Extends a sequential series	of data		in to compare a second
		Automatically adds a range		ue	S
		Applies a boarder around s			
		None of above			
43)	How	are data organized in a spr	eadsheet?		
		Lines and spaces	B)	L	Layers and planes
	C) I	Rows and columns	D)		Height and width
M-21	148		[9]		(P.T.O.)
					(1.1.0.)